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(FILE 'HOME' ENTERED AT 13:57:59 ON 28 MAR 2003)

FILE 'CAPLUS' ENTERED AT 13:58:08 ON 28 MAR 2003

FILE 'REGISTRY' ENTERED AT 13:58:13 ON 28 MAR 2003

L1 STRUCTURE UPLOADED

L2 379 S L1 FULL

FILE 'CAPLUS' ENTERED AT 13:58:50 ON 28 MAR 2003

L3 201 S L2

L4 7 S L3 AND OLIGONUCLEOTIDE

=> d l3 100-149 bib abs hitstr

L3 ANSWER 100 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1979:571303 CAPLUS

DN 91:171303

TI Production of guanosine by psicofuranine and decoyinine resistant mutants of *Bacillus subtilis*

AU Matsui, Hiroshi; Sato, Katsuaki; Enei, Hitoshi; Hirose, Yoshio

CS Cent. Res. Lab., Ajinomoto Co., Inc., Kawasaki, Japan

SO Agricultural and Biological Chemistry (1979), 43(8), 1739-44

CODEN: ABCHA6; ISSN: 0002-1369

DT Journal

LA English

AB Growth of *B. subtilis* AG169 that produced large amts. of xanthosine and guanosine was inhibited by psicofuranine. When AG169 was mutated to resistance against psicofuranine, a mutant, GP-1, which yielded more guanosine was obtained. Psicofuranine did not inhibit growth of GP-1. In GP-1, GMP synthetase activity was about half, with complete lack of repression and slightly less inhibition by GMP, of that in AG169. As growth of GP-1 was strongly inhibited by decoyinine, decoyinine-resistant mutants were derived from GP-1. Of these mutants, 2 strains, MG-1 and MG-4, were resistant to decoyinine completely and showed accumulation of guanosine in high yields, 16.0 and 15.5 g guanosine/L. The GMP synthetase activity of MG-1 was much greater than in GP-1 or AG169, and MG-1 was not inhibited by GMP, psicofuranine, or decoyinine. Psicofuranine and decoyinine resistance seemed mainly to affect GMP synthetase, and as a result, the conversion of xanthosine 5'-monophosphate to GMP proceeded more smoothly, and a larger amt. of guanosine was accumulated.

IT 1874-54-0

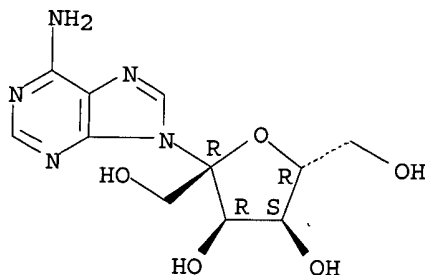
RL: BIOL (Biological study)

(guanosine prodn. by *Bacillus subtilis* mutants resistant to)

RN 1874-54-0 CAPLUS

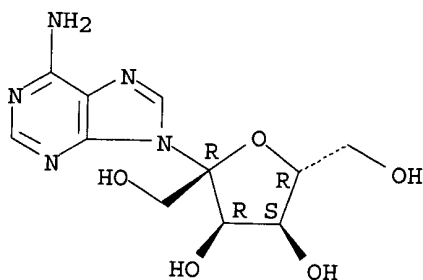
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 101 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1979:415775 CAPLUS
 DN 91:15775
 TI Adenosine kinase from rabbit liver. II. Substrate and inhibitor specificity
 AU Miller, Richard L.; Adamczyk, David L.; Miller, Wayne H.; Koszalka, George W.; Rideout, Janet L.; Beacham, Lowrie M., III; Chao, Esther Y.; Haggerty, Jerald J.; Krenitsky, Thomas A.; Elion, Gertrude B.
 CS Wellcome Res. Lab., Research Triangle Park, NC, 27709, USA
 SO Journal of Biological Chemistry (1979), 254(7), 2346-52
 CODEN: JBCHA3; ISSN: 0021-9258
 DT Journal
 LA English
 AB Kinetic consts. for substrates and inhibitors of highly purified rabbit liver adenosine kinase were detd. for 119 nucleosides and nucleoside analogs. The enzyme was relatively nonsp. with regard to the base moiety of ribonucleosides. The best substrates were adenosine, 8-azaadenosine, toyocamycin, and sangivamycin. Although imidazole ribonucleosides and some of their analogs served as substrates, their K'm values were >1000 times that of adenosine. None of the pyrimidine ribonucleosides tested were substrates or inhibitors. The enzyme was relatively specific for the ribosyl moiety. 2'-Deoxyadenosine and arabinosyladenine were extremely poor substrates, with substrate efficiencies of 10⁻⁴-10⁻⁶ that of adenosine. Binding of the inhibitor, 5'-deoxy-5'-aminoadenosine appeared to be pH-dependent. Basically, these results support the suggestion that a 2'-hydroxyl group trans to the glycoside linkage is a prerequisite for substrate activity or appreciable binding to the enzyme. A trans-2'-amino group was able to replace the 2'-hydroxyl group without loss of substrate activity. Studies with adenosine analogs locked in defined conformations suggest that binding to the enzyme does not appear to be solely dependent upon conformation.
 IT 1874-54-0
 RL: BIOL (Biological study)
 (adenosine kinase inhibition-by, kinetics-of)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

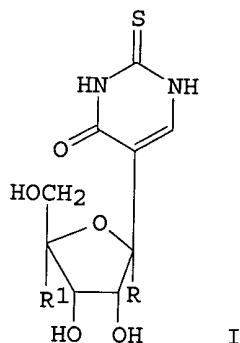
Absolute stereochemistry.



L3 ANSWER 102 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1979:121932 CAPLUS
 DN 90:121932
 TI Synthesis of novel pyrimidine C-nucleosides
 AU Sato, Tsuneo; Noyori, Ryoji
 CS Dep. Chem., Nagoya Univ., Nagoya, Japan
 SO Nucleic Acids Research, Special Publication (1978), 5(Symp. Nucleic Acids Chem., 6th), 257-60
 CODEN: NARPD6; ISSN: 0309-1872

09567863

DT Journal
LA English
GI

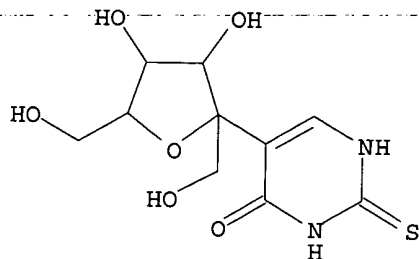


AB A stereocontrolled entry to a novel type of pyrimidine C-nucleosides has been accomplished starting with .alpha.,.alpha.,.alpha.',.alpha.'-tetrabromoacetone and furfuryl acetate. Thus, I (R = CH2OH, R1 = H; R = H, R1 = CH2OH) were obtained free from isomers.

IT **69471-81-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 69471-81-4 CAPLUS

CN 4(1H)-Pyrimidinone, 2,3-dihydro-5-.beta.-psicofuranosyl-2-thioxo- (9CI)
(CA INDEX NAME)



L3 ANSWER 103 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1979:1685 CAPLUS

DN 90:1685

TI Agricultural antibiotic

IN Kida, Takao; Terahara, Zuisho; Shida, Toshiro; Mizuno, Hiroshi; Takahara, Yoshiyuki; Hirose, Yoshiteru

PA Ajinomoto Co., Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

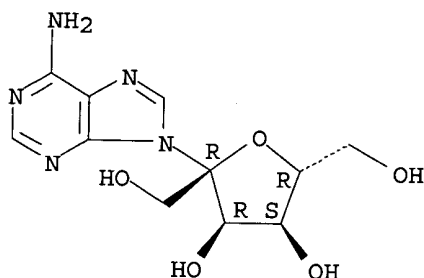
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 53086017	A2	19780729	JP 1976-148137	19761209
	US 4225585	A	19800930	US 1978-908750	19780523

09567863

PRAI JP 1976-148137 19761209
AB The antibiotics angustmycin A [2004-04-8] and angustmycin C [1874-54-0] are fungicides. Thus, 500 ppm angustmycin C controlled *Pseudomonas lachrymans* infection in cucumber.
IT 1874-54-0
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(fungicide)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9- β -D-psicofuranosyl- (9CI) (CA INDEX NAME)

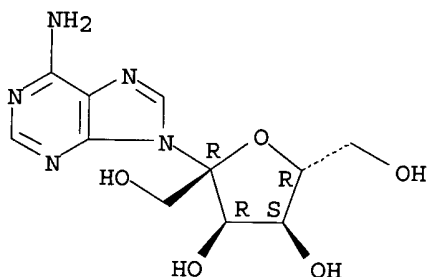
Absolute stereochemistry.



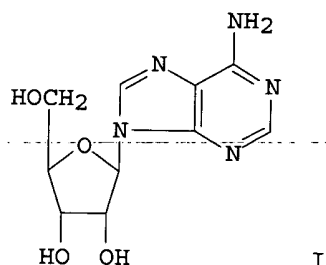
L3 ANSWER 104 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1978:541059 CAPLUS
DN 89:141059
TI Antibiotic activity of organic compounds and their average quasi-valence number
AU Ajdacic, V.; Veljkovic, V.
CS Boris Kidric Inst., Belgrade, Yugoslavia
SO Experientia (1978), 34 (5), 633-5
CODEN: EXPEAM; ISSN: 0014-4754
DT Journal
LA English
AB The av. quasi-valence nos. Z* of antibiotics inhibiting protein synthesis are in the range of the av. Z* values of amino acids; those of antibiotics inhibiting DNA or RNA synthesis are higher, being closer to the Z* values of purine and pyrimidine bases. Z* is a ratio calcd. from the at. valence electrons and no. of atoms in a mol. Thus, the electronic charge carried by a mol. is involved in its biol. activity, possibly during transport of the mol. or in its approach to the reaction centers.
IT 1874-54-0
RL: PRP (Properties)
(quasi-valence no. of, RNA-formation inhibition in relation to)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9- β -D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



L3 ANSWER 105 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1978:400965 CAPLUS
DN 89:965
TI Ligand binding to the adenine analog binding protein of the rabbit erythrocyte
AU Olsson, R. A.
CS Coll. Med., Univ. South Florida, Tampa, FL, USA
SO Biochemistry (1978), 17(2), 367-75
CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
GI



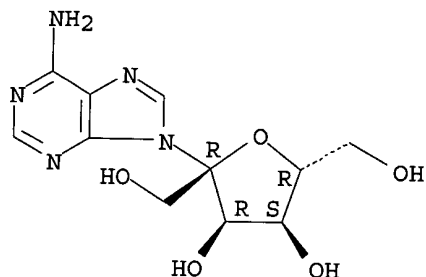
AB Adenine analog binding protein of rabbit erythrocytes reversibly bond tritium-labeled adenosine (I) [68-94-0] with an equil. const. of 5.3 .times. 10⁻⁹M, an assocn. rate const. of 1.4 .times. 10⁻¹²M⁻¹ min⁻¹, and a dissocn. rate const. of 7.5 .times. 10⁻³ min⁻¹, as estd. by an nonlinear curve-fitting program applied to data on the time course of the binding reaction. Inhibition of I binding by a series of 77 I analogs was used to define the factors detg. the binding affinity of this nucleoside. These are: (1) the size and aromaticity of the purine base; (2) a glycosylic torsion angle of .apprx.-120.degree.; (3) the ribo configuration of the 2'- and 3'-hydroxyls and also the 5'-hydroxyl. Bulky substituents in the region of C-2' and to a lesser extent in the region of C-3' decreased affinity.

IT 1874-54-0
RL: PRP (Properties)
(adenosine binding by protein inhibition by, in erythrocyte)

RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



L3 ANSWER 106 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1977:423660 CAPLUS
DN 87:23660
TI C-4'-branched-chain sugar nucleosides: synthesis of isomers of
psicofuranine
AU Rosenthal, Alex; Ratcliffe, Murray
CS Dep. Chem., Univ. British Columbia, Vancouver, BC, Can.
SO Carbohydrate Research (1977), 54(1), 61-73
CODEN: CRBRAT; ISSN: 0008-6215
DT Journal
LA English
GI

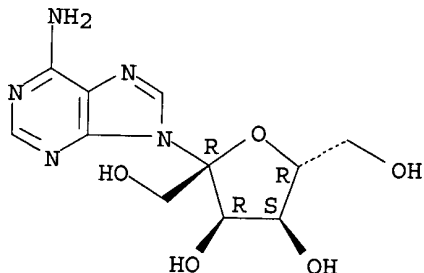
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Photoamidation of 3-O-acetyl-1,2:5,6-di-O-isopropylidene-.alpha.-D-erythro-hex-3-enofuranose gave 65% gulofuranose I and 26% allofuranose II; treatment of I with HCl in MeOH gave the lactone III, which was reduced by NaBH₄ to give (hydroxymethyl)gulofuranose-IV- [R = H, R₁ = HOCH₂, R₂ = CH(OH)CH₂OH] (V). Sodium metaperiodate oxidn. of V and subsequent NaBH₄ redn. gave the (hydroxymethyl)pentofuranose IV (R = H, R₁ = R₂ = CH₂OH). Treatment of IV (R = Ac, R₁ = R₂ = AcO) with CF₃CO₂H followed by acetylation gave VI, which was converted to the corresponding glycosyl halide and condensed with N⁶-benzoyl-N⁶,9-bis(trimethylsilyl)adenine to give the pentofuranosyl adenine VII and its .alpha.-D anomer after deblocking.

IT 1874-54-0DP, isomers
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

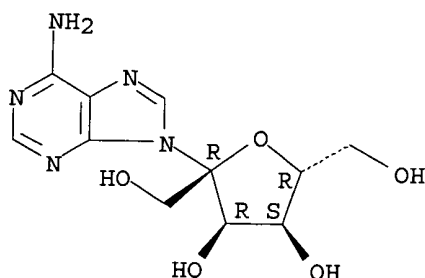
Absolute stereochemistry.



L3 ANSWER 107 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1977:39244 CAPLUS
 DN 86:39244
 TI Guanosine monophosphate synthetase from Ehrlich ascites cells. Multiple inhibition by pyrophosphate and nucleosides
 AU Spector, Thomas; Jones, Thomas E.; Krenitsky, Thomas A.; Harvey, Robert J.
 CS Wellcome Res. Lab., Burroughs Wellcome Co., Research Triangle Park, NC, USA
 SO Biochimica et Biophysica Acta (1976), 452(2), 597-607
 CODEN: BBACAQ; ISSN: 0006-3002
 DT Journal
 LA English
 AB GMP synthetase (EC 6.3.4.1) from Ehrlich ascites cells is subject to multiple inhibition by its reaction product, pyrophosphate (PPi), and some analogs of adenosine. PPi and the nucleoside inhibitors were also capable of individually inhibiting this enzyme. Under no conditions did the inhibition appear to be irreversible or pseudoinactivating in nature. The individual inhibition by PPi was competitive with respect to ATP ($K_i = 0.42$ mM). Conversely, in the absence of PPi, the binding of nucleoside was noncompetitive with ATP, but shifted to a competitive pattern when PPi was present. Furthermore, with the inhibitors in concert, there was an apparent lowering of the K_i values for both inhibitors. These data are consistent with either PPi functioning to tighten the binding of nucleoside at a noncatalytic site (pos. cooperativity) or with PPi actually opening a 2nd binding site for nucleoside in addn. to the noncatalytic site. The intensity of the effect of PPi appeared to be const.; i.e., for various nucleoside inhibitors with a range of independently detd. K_i values from 26 to 1650 μ M, the ratio of their K_i values detd. in the absence of PPi to the values detd. in the presence of PPi was always 38.

IT 1874-54-0
 RL: BIOL (Biological study)
 (guanylate synthetase inhibition by)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9- β -D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 108 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1976:524279 CAPLUS
 DN 85:124279
 TI Branched-chain nucleosides: synthesis of structural analogs of psicofuranine and of the polyoxin complex
 AU Ratcliffe, Robert M.
 CS Univ. British Columbia, Vancouver, BC, Can.
 SO (1975) No pp. Given Avail.: Univ. British Columbia, Vancouver, B. C
 From: Diss. Abstr. Int. B 1976, 36(12, Pt. 1), 6177
 DT Dissertation

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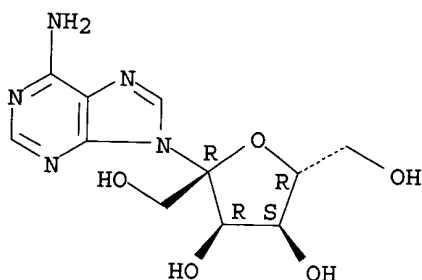
LA English
AB Unavailable
IT 1874-54-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(analog of, prepn. of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 109 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1976:489150 CAPLUS

DN 85:89150

TI Deoxycytidine kinase from calf thymus. Substrate and inhibitor specificity

AU Krenitsky, Thomas A.; Tuttle, Joel V.; Koszalka, George W.; Chen, Isabel S.; Beacham, Lowrie, M., III; Rideout, Janet L.; Elion, Gertrude B.

CS Wellcome Res. Lab., Research Triangle Park, NC, USA

SO Journal of Biological Chemistry (1976), 251(13), 4055-61
CODEN: JBCHA3; ISSN: 0021-9258

DT Journal

LA English

AB Kinetic consts. were detd. for 34 nucleoside substrates of deoxycytidine kinase (EC 2.7.1.74) from calf thymus. Substrate efficiency was assessed by the ratio of Vmax to Km. Inhibition consts. were detd. for 61 nonsubstrate nucleosides or nucleoside analogs. The enzyme was relatively specific for the pentose moiety of nucleoside substrates. .beta.-D-2'-Deoxyribonucleosides were more efficient substrates than the corresponding .beta.-D-arabinonucleosides. Unexpectedly, the L isomer of the .beta.-arabinonucleoside of cytosine was a more efficient substrate than was the D isomer. .beta.-Cytidine and .beta.-5-azacytidine were the only .beta.-D-ribonucleosides studied that had detectable substrate activity. .alpha.-Cytidine was an inhibitor but not a substrate. Nucleosides contg. a variety of sugar moieties other than those mentioned above did not have detectable substrate activity. The enzyme was relatively nonspecific for the base moiety of nucleoside substrates. 2'-Deoxyribonucleosides of a variety of pyrimidines, purines, and other heterocycles were substrates. Cytosine was the most preferred pyrimidine moiety. 5-Substitution, except with F, decreased substrate efficiency with nucleosides of cytosine or uracil. 2-Fluoroadenine was the most preferred purine moiety. The effects of various purine ring substituents were interdependent. Nucleosides contg. bulky, hydrophobic substituents on either the base or the pentose moiety had no substrate activity but were relatively potent competitive inhibitors. This suggested the presence of a hydrophobic region on the surface of the enzyme near the active site.

IT 1874-54-0

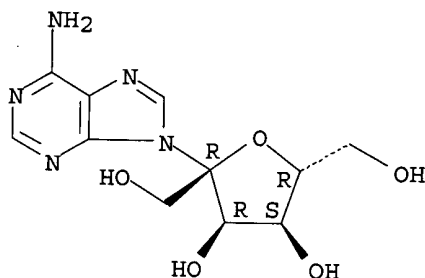
RL: BIOL (Biological study)
(deoxycytidine kinase specificity for)

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RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 110 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1976:180518 CAPLUS

DN 84:180518

TI Halo sugar nucleosides. V. Synthesis of angustmycin A and some base analogues

AU Prisbe, Ernest J.; Smejkal, Jiri; Verheyden, Julien P. H.; Moffatt, John G.

CS Inst. Mol. Biol., Syntex Res., Palo Alto, CA, USA

SO Journal of Organic Chemistry (1976), 41(10), 1836-46
CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

GI For diagram(s), see printed CA Issue.

AB 9-(5-Deoxy-.beta.-D-erythro-pent-4-enofuranosyl)adenine was prepd. via dehydrohalogenation of 5'-deoxy-5'-iodo-N₆,N₆,O2',O3'-tetrabenzoyladenine with either AgF in pyridine or with 1,5-diazabicyclo[4.3.0]non-5-ene in DMF. 1,3,4-Tri-O-benzoyl-6-deoxy-6-iodo-D-psicofuranosyl bromide (I) was prepd. from D-fructose via oxidn. of the 1,2:4,5-di-O-isopropylidene deriv. followed by NaBH₄ redn., acid-catalyzed isomerization to the psicofuranose deriv., and iodination. Condensation of I with adenine derivs. provides the 9-.beta.-D-psicofuranosyl nucleosides [II, R = H, Bz, CO(CH₂)₄Me] with lesser amts. of the .alpha.-anomers. Dehydrohalogenation of II followed by deblocking gives angustmycin A. Related sequences starting with condensations of I with cytosine or 3-methoxycarbonyl-1,2,4-triazole lead to the corresponding base analogs of angustmycin A. The .beta.-D-psicofuranosyl derivs. of cytosine and of 1,2,4-triazole-3-carboxamide were also prepd.

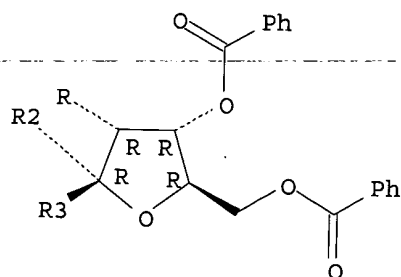
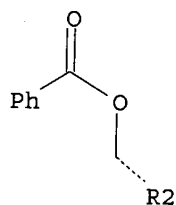
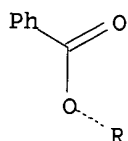
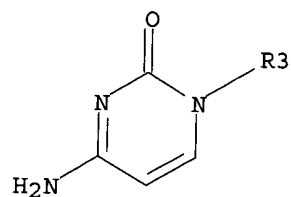
IT 58463-30-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and debenzoylation of)

RN 58463-30-2 CAPLUS

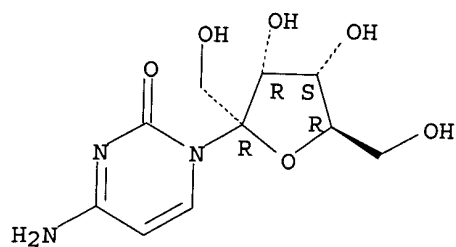
CN 2(1H)-Pyrimidinone, 4-amino-1-(1,3,4,6-tetra-O-benzoyl-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

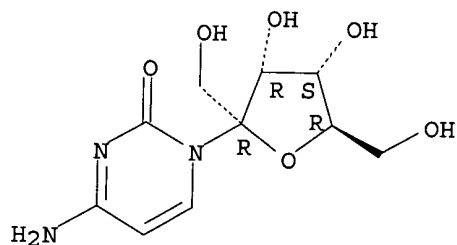


IT 53318-75-5P 58463-23-3P 58463-27-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 53318-75-5 CAPLUS
 CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-psicofuranosyl- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.



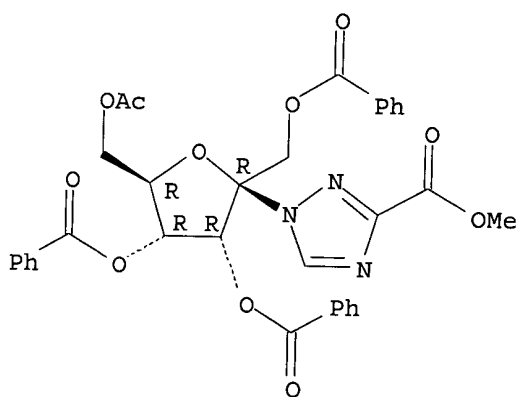
09567863



RN 58463-23-3 CAPLUS

CN 1H-1,2,4-Triazole-3-carboxylic acid, 1-(6-O-acetyl-1,3,4-tri-O-benzoyl-.beta.-D-psicofuranosyl)-, methyl ester (9CI) (CA INDEX NAME)

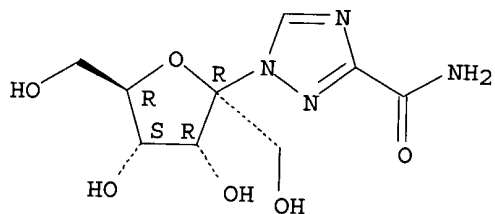
Absolute stereochemistry.



RN 58463-27-7 CAPLUS

CN 1H-1,2,4-Triazole-3-carboxamide, 1-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 111 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1975:588083 CAPLUS

DN 83:188083

TI Antibiotics resembling adenosine. Tubercidin, toyocamycin, sangivamycin, formycin, psicofuranine, and decoyinine

AU Nichol, Charles A.

CS Wellcome Res. Lab., Research Triangle Park, NC, USA

SO Handbuch der Experimentellen Pharmakologie (1975), 38 (Antineoplast. Immunosuppr. Agents, Pt. 2), 434-57

CODEN: HXPHAU; ISSN: 0073-0033

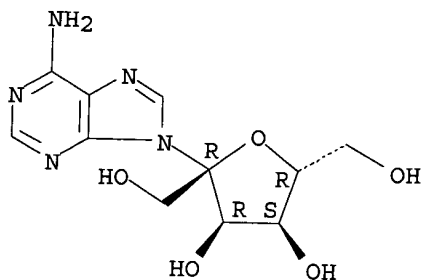
DT Journal; General Review

LA English

09567863

- AB A review of the pharmacol. of antibiotics which resemble adenosine such as tubercidin [69-33-0], toyocamycin [606-58-6], sangivamycin [18417-89-5], formycin [6742-12-7], psicofuranine [1874-54-0], and decoyinine [2004-04-8]; with many refs. The relationship of the structure of the antibiotics to their metab. and locus of action is emphasized.
- IT 1874-54-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmacol. of)
- RN 1874-54-0 CAPLUS
- CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

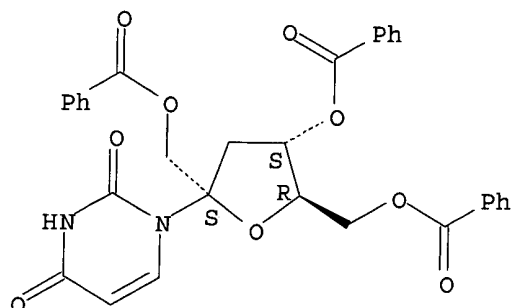
Absolute stereochemistry.



- L3 ANSWER 112 OF 201 CAPLUS COPYRIGHT 2003 ACS
- AN 1975:410678 CAPLUS
- DN 83:10678
- TI Synthesis of 1-[3-deoxy-.beta.-D-psicofuranosyl]uracil and related compounds
- AU Holy, A.
- CS Inst. Org. Chem. Biochem., Czech Acad. Sci., Prague, Czech.
- SO Nucleic Acids Research (1974), 1(2), 289-98
CODEN: NARHAD; ISSN: 0305-1048
- DT Journal
- LA English
- AB D-Fructose gave on treatment with cyanamide 2-amino-.beta.-D-fructofuro[2',3':3,4]oxazoline 1-[1,4,6-tri-O-benzoyl-3-chloro-3-deoxy-.beta.-D-psicofuranosyl]uracil was not isolated but transformed directly by reaction with Et propiolate into O2,O3'-anhydro-2-[(.beta.-D-fructofuranosyl]uracil, which was benzoylated to the 1',4',6'-tri-O-benzoyl deriv. I with C6H5CN-Et3N. On treatment with HCl-DMF, I gave the 1-[1,4,6-tri-O-benzoyl-3-chloro-3-deoxy-.beta.-D-psicofuranosyl]uracil 1',4',5'-tribenzoate from which the title nucleoside deriv. is obtained by methanolysis.
- IT 55697-36-4P 55697-37-5P 55697-39-7P
55701-22-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
- RN 55697-36-4 CAPLUS
- CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

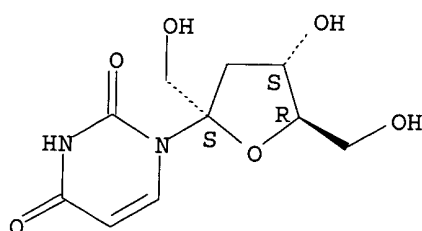
09567863



RN 55697-37-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)-
(9CI) (CA INDEX NAME)

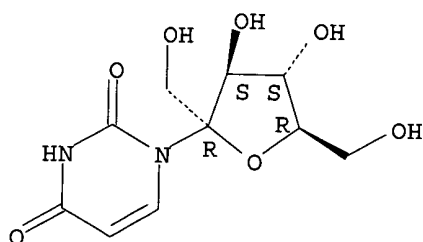
Absolute stereochemistry.



RN 55697-39-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-D-fructofuranosyl- (9CI) (CA INDEX
NAME)

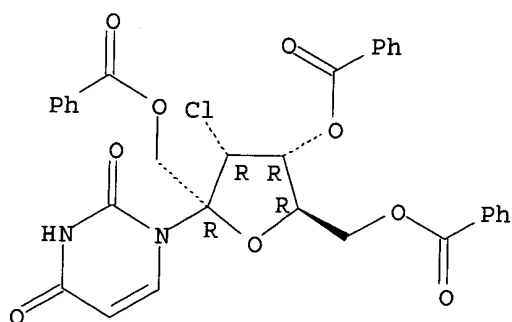
Absolute stereochemistry.



RN 55701-22-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-3-chloro-3-deoxy-.beta.-
D-psicofuranosyl)- (9CI) (CA INDEX NAME)

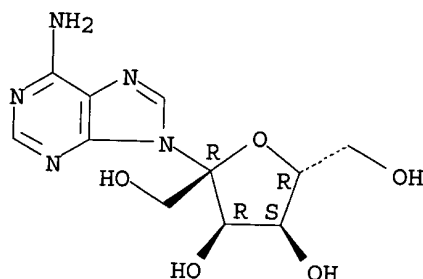
Absolute stereochemistry.



L3 ANSWER 113 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1975:166424 CAPLUS
 DN 82:166424
 TI Xanthosine-5'-phosphate amidotransferase from *Escherichia coli*
 AU Patel, Nanu; Moyed, Harris S.; Kane, James F.
 CS Dep. Microbiol., Univ. Tennessee Cent. Health Sci., Memphis, TN, USA
 SO Journal of Biological Chemistry (1975), 250(7), 2609-13
 CODEN: JBCHA3; ISSN: 0021-9258
 DT Journal
 LA English
 AB Purified XMP aminase from *E. coli* strain B-96 possessed catalytic activity with either glutamine or NH₃ as a substrate. This enzyme, which possesses identical subunits, had the following properties: (1) a pH optimum of 8.3 for both aminase and amidotransferase; (2) an apparent K_m for both glutamine and NH₃ of 1mM; (3) an amidotransferase that is .apprx.2 times more active than the aminase; (4) a linear relation between velocity and enzyme concn. for both activities; (5) inhibition of both activities by the glutamine analog 6-diazo-5-oxo-L-norleucine, but the amidotransferase is more sensitive than the aminase; and (6) inhibition of both activities by the adenosine analog, psicofuranine, but again the amidotransferase activity is more sensitive than the aminase. The so-called XMP aminase from the *E. coli* mutant B-24-1 also was examd. in both crude exts. and (NH₄)₂SO₄ fractions and the following data were obtained: (1) both preps. of enzyme contain aminase and amidotransferase activity; (2) both activities have the same substrate requirements; (3) the pH optima for both activities in the crude ext. are identical with those found with the purified enzyme prepn.; and (4) the amidotransferase activity in the crude ext. and the (NH₄)₂SO₄ fractions is 2- to 3-fold more active than the aminase. Thus, this enzyme from *E. coli* is not strictly a XMP aminase but is, in fact, an amidotransferase capable of utilizing either glutamine or NH₃, as a substrate.
 IT 1874-54-0
 RL: BIOL (Biological study)
 (xanthosine phosphate amidotransferase inhibition by)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

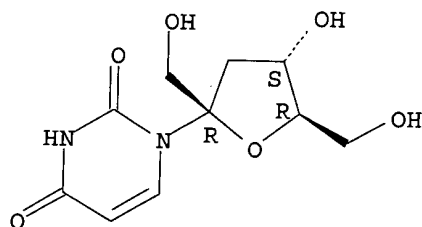
Absolute stereochemistry.

09567863



- L3 ANSWER 114 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1975:165304 CAPLUS
DN 82:165304
TI Inhibition of nucleoside-binding sites by nucleoside analogs in
Escherichia coli
AU Dorskocil, J.; Holy, A.
CS Inst. Org. Chem. Biochem., Czech. Acad. Sci., Prague, Czech.
SO Nucleic Acids Research (1974), 1(3), 491-502
CODEN: NARHAD; ISSN: 0305-1048
DT Journal
LA English
AB A no. of analogs of pyrimidine nucleosides, purine nucleosides, and
nucleosides with modified sugar components inhibited the bacteriostatic
effect of showdomycin [16755-07-0] in E. coli. Since the activity of this
antibiotic is dependent on its cellular uptake by a nucleoside-
transporting system, the nucleoside analogs may act as competitive
inhibitors for a common nucleoside binding site on the cell surface.
Incorporation of the inhibitor 5-azacytidine [320-67-2] depended on the
same nucleoside-transporting system as that of showdomycin, and the same
analogs antagonized the bacteriostatic effects of both inhibitors. The
rate of thymidine phosphorolysis by intact E. coli cells was detd. by the
nucleoside-transporting system, and there was good agreement between the
showdomycin-detoxifying effect and the inhibition of thymidine
phosphorolysis by the nucleoside analogs.
IT 55207-79-9
RL: PRP (Properties)
(showdomycin transport inhibition by, in Escherichia coli)
RN 55207-79-9 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.alpha.-D-erythro-2-
hexulofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- L3 ANSWER 115 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1975:123360 CAPLUS
DN 82:123360
TI Xanthosine by fermentation

09567863

IN Nara, Takashi; Misawa, Masayoshi; Kawamoto, Isao
PA Kyowa Hakko Kogyo Co., Ltd.
SO Jpn. Tokkyo Koho, 2 pp.
CODEN: JAXXAD

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 49039839	B4	19741029	JP 1967-30403	19670515
PRAI	JP 1967-30403		19670515		

AB Xanthosine was produced from cells and cultures of xanthosine-producing *Anthrobacter* and *Brevibacterium* which were grown in media contg. the antibiotic psicofuranin. Thus, *B. ketoglutamicum* ATCC 15587 was cultured aerobically at 30.degree. for 120 hr in a medium contg. light oil 5, (NH₄)₂SO₄ 1, K₂HPO₄ 0.2, KH₂PO₄ 0.18 MgSO₄ 0.05, MnSO₄ 0.001, FeSO₄ 0.001, yeast ext. 0.4, peptone 0.5, CaCO₃ 2%, and psicofuranin 1000 .mu.g/ml. The prodn. of xanthosine was 1.32 mg/ml in the culture contg. psicofuranin and trace amts. in the control culture.

IT 1874-54-0

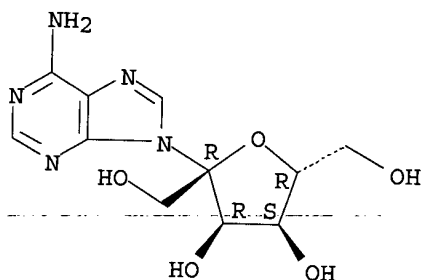
RL: BIOL (Biological study)

(in xanthosine fermn. by *Brevibacterium ketoglutamicum*)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 116 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1975:17059 CAPLUS
DN 82:17059
TI Nucleic acid components and their analogs. CLXVI. Synthesis of 7- and 9.beta.-D-psicofuranosylguanine and their 1'-deoxy derivatives
AU Hrebabecky, H.; Farkas, J.
CS Inst. Org. Chem. Biochem., Czechoslovak Acad. Sci., Prague, Czech.
SO Collection of Czechoslovak Chemical Communications (1974), 39(8), 2115-23
CODEN: CCCCAK; ISSN: 0010-0765
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB Reaction of tris(trimethylsilyl)-N2-acetylguanine in MeCN in the presence of (AcO)₂Hg with 1,3,4,6-tetra-O-benzoyl-D-psicofuranosyl bromide, 1-chloro-1-deoxy-3,4,6-tri-O-p-toluoyl-D-psicofuranosyl bromide, 1-bromo-1-deoxy-3,4,6-tri-O-p-toluoyl-D-psicofuranosyl bromide, and 1,3,4,6-tetra-O-benzoyl-D-fructofuranosyl bromide was examd. The Bu₃SnH redn. of I and II (R₁ = Br, R₂ = p-MeC₆H₄CO, R₃ = Ac) gave I and II (R₁ = H, R₂ = p-MeC₆H₄CO, R₃ = Ac) which were converted with NH₃ in MeOH to the free nucleosides I and II (R₁ = R₂ = R₃ = H).
IT 51296-48-1
RL: RCT (Reactant); RACT (Reactant or reagent)

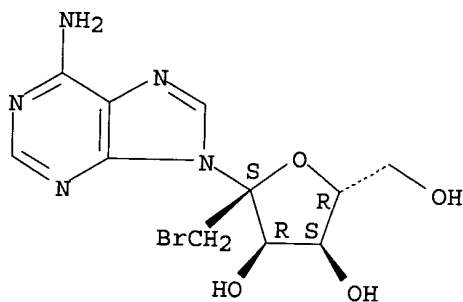
09567863

(CD of)

RN 51296-48-1 CAPLUS

CN 9H-Purin-6-amine, 9-(1-bromo-1-deoxy-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 54401-01-3P 54401-02-4P 54401-03-5P

54401-04-6P 54401-05-7P 54401-06-8P

54401-07-9P 54401-08-0P 54401-09-1P

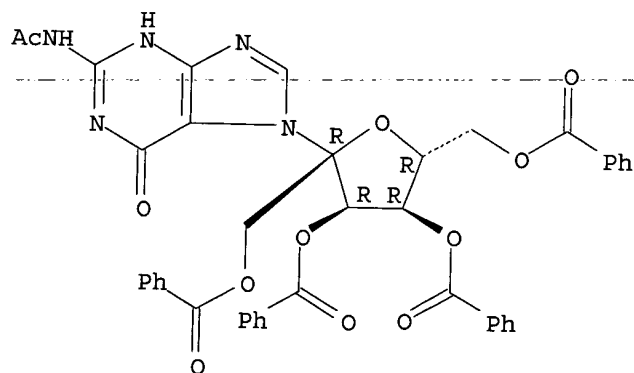
54401-21-7P 54401-22-8P 54547-89-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 54401-01-3 CAPLUS

CN Acetamide, N-[6,7-dihydro-6-oxo-7-(1,3,4,6-tetra-O-benzoyl-.beta.-D-psicofuranosyl)-1H-purin-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

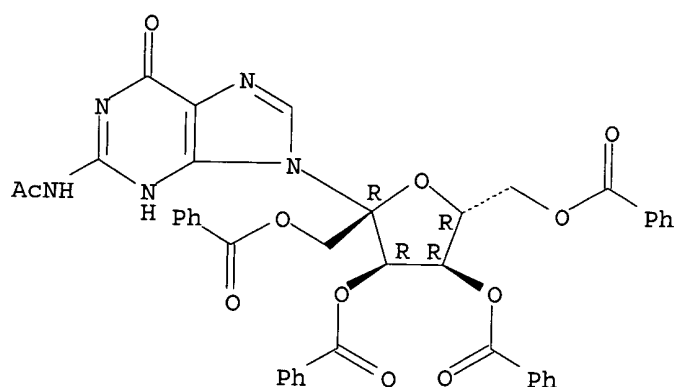


RN 54401-02-4 CAPLUS

CN Acetamide, N-[6,9-dihydro-6-oxo-9-(1,3,4,6-tetra-O-benzoyl-.beta.-D-psicofuranosyl)-1H-purin-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

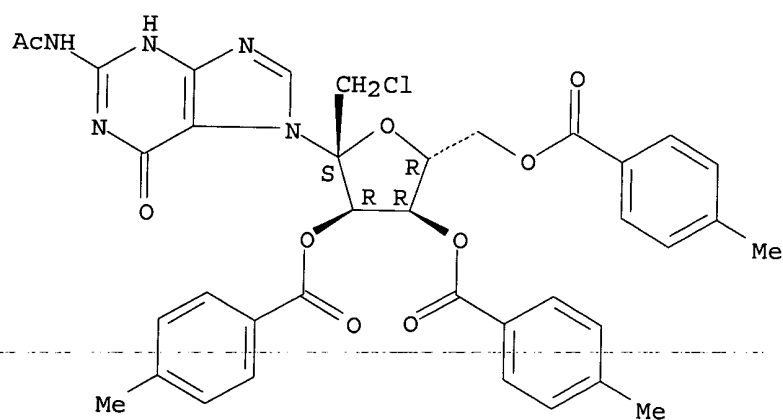
09567863



RN 54401-03-5 CAPLUS

CN Acetamide, N-[7-[1-chloro-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-6,7-dihydro-6-oxo-1H-purin-2-yl] - (9CI) (CA INDEX NAME)

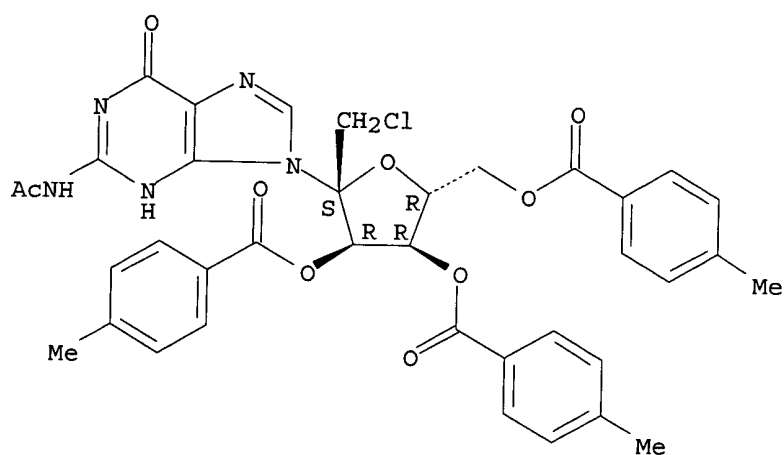
Absolute stereochemistry.



RN 54401-04-6 CAPLUS

CN Acetamide, N-[9-[1-chloro-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-6,9-dihydro-6-oxo-1H-purin-2-yl] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

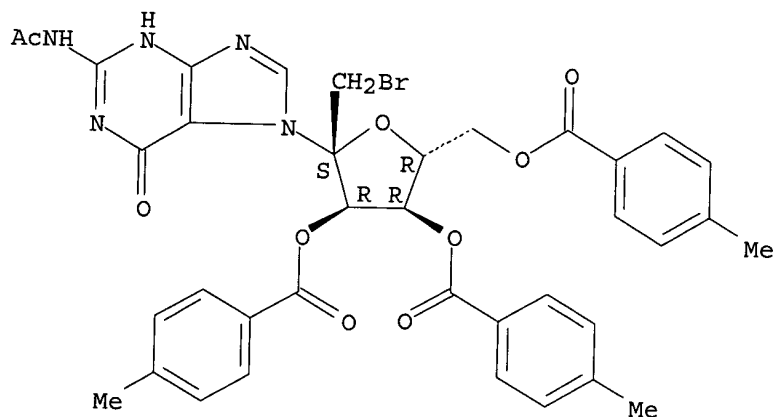


09567863

RN 54401-05-7 CAPLUS

CN Acetamide, N-[7-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-6,7-dihydro-6-oxo-1H-purin-2-yl]- (9CI) (CA INDEX NAME)

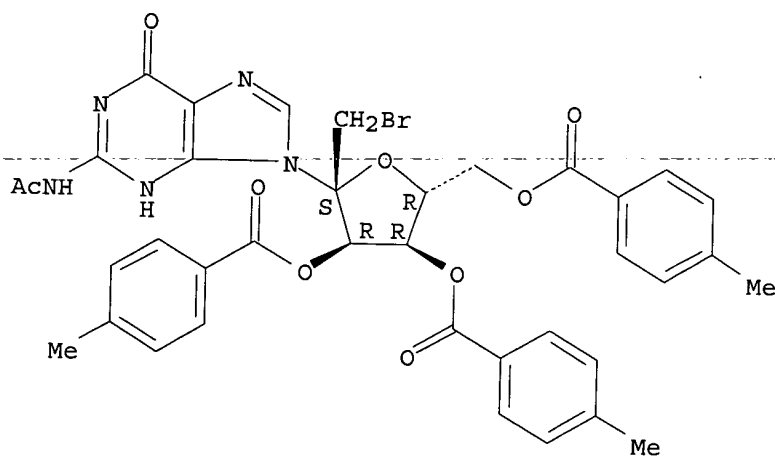
Absolute stereochemistry.



RN 54401-06-8 CAPLUS

CN Acetamide, N-[9-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-6,9-dihydro-6-oxo-1H-purin-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

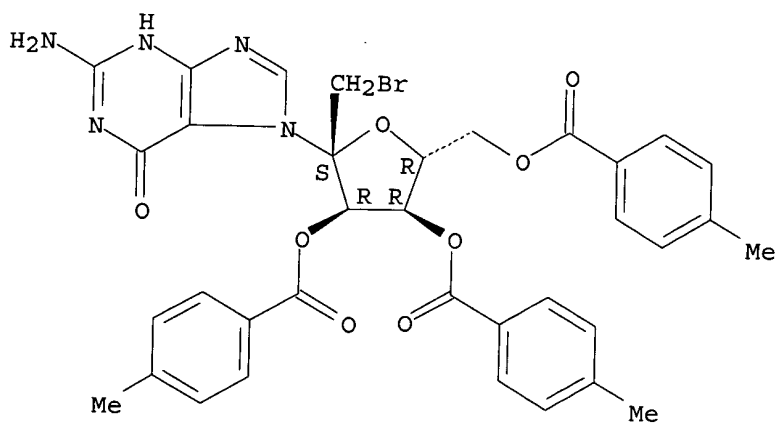


RN 54401-07-9 CAPLUS

CN 6H-Purin-6-one, 2-amino-7-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-1,7-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

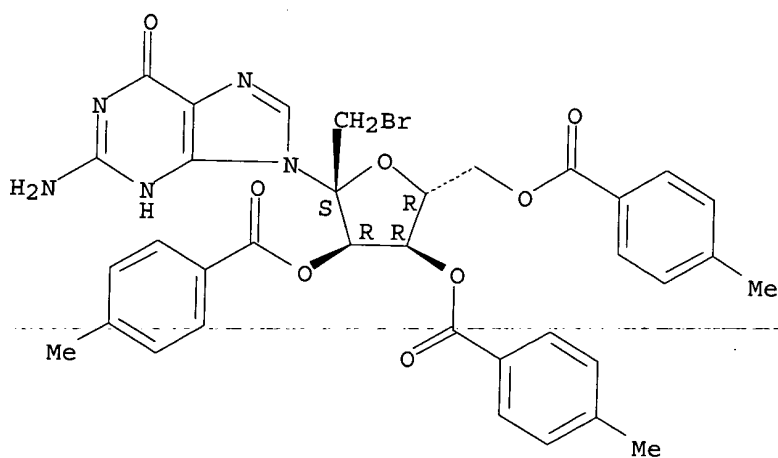
09567863



RN 54401-08-0 CAPLUS

CN 6H-Purin-6-one, 2-amino-9-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-1,9-dihydro- (9CI) (CA INDEX NAME)

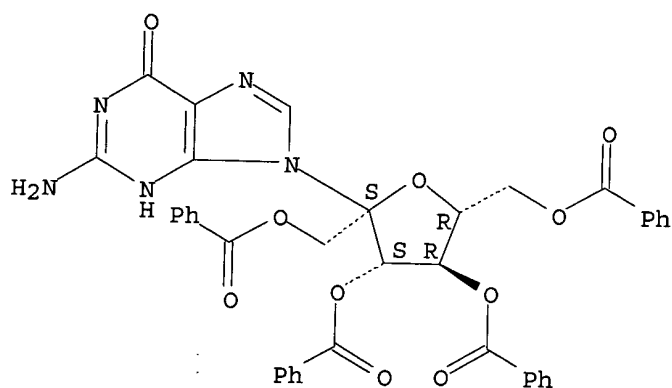
Absolute stereochemistry.



RN 54401-09-1 CAPLUS

CN 6H-Purin-6-one, 2-amino-1,9-dihydro-9-(1,3,4,6-tetra-O-benzoyl-.alpha.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

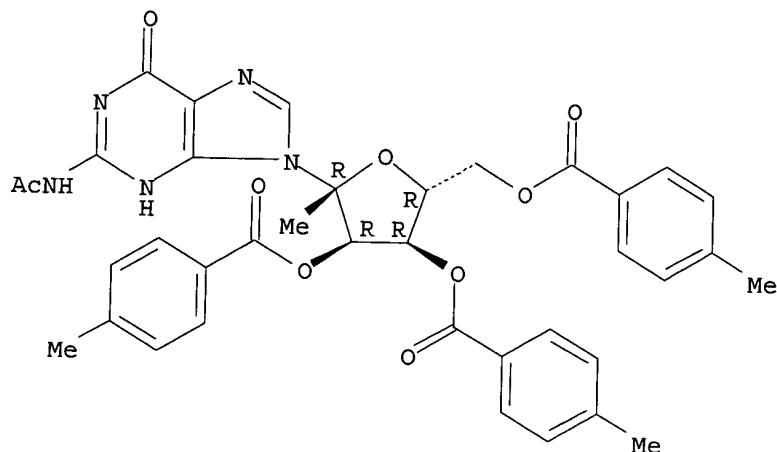


09567863

RN 54401-21-7 CAPLUS

CN Acetamide, N-[9-[1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-6,9-dihydro-6-oxo-1H-purin-2-yl]- (9CI) (CA INDEX NAME)

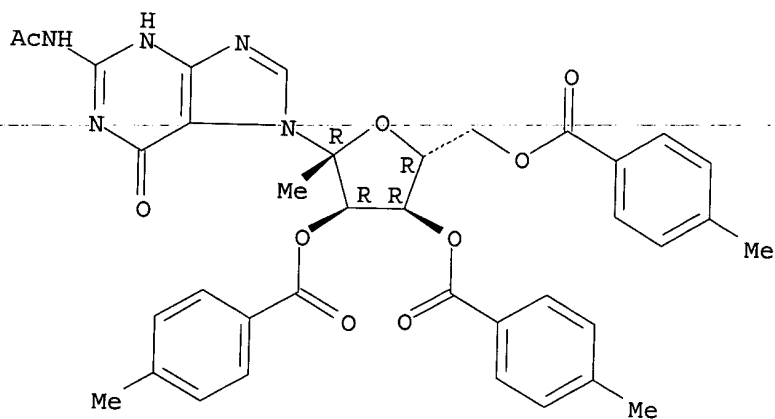
Absolute stereochemistry.



RN 54401-22-8 CAPLUS

CN Acetamide, N-[7-[1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-6,7-dihydro-6-oxo-1H-purin-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

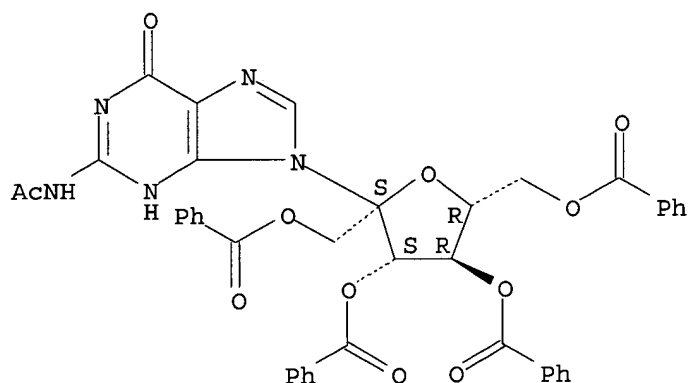


RN 54547-89-6 CAPLUS

CN Acetamide, N-[6,9-dihydro-6-oxo-9-(1,3,4,6-tetra-O-benzoyl-.alpha.-D-fructofuranosyl)-1H-purin-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



IT 54401-14-8 54401-15-9 54401-16-0

54401-17-1 54401-18-2 54401-19-3

54401-20-6 54477-03-1 54477-04-2

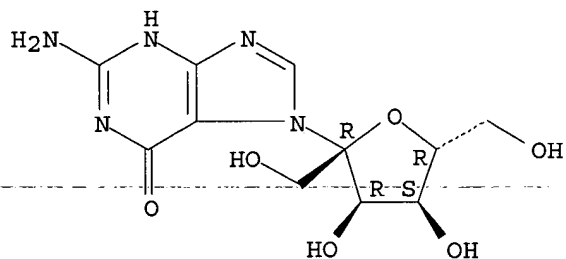
RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. uv and CD of)

RN 54401-14-8 CAPLUS

CN 6H-Purin-6-one, 2-amino-1,7-dihydro-7-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

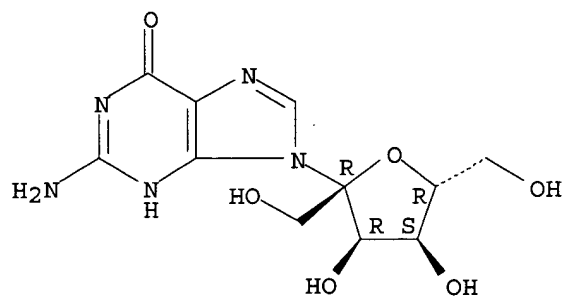
Absolute stereochemistry.



RN 54401-15-9 CAPLUS

CN 6H-Purin-6-one, 2-amino-1,9-dihydro-9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

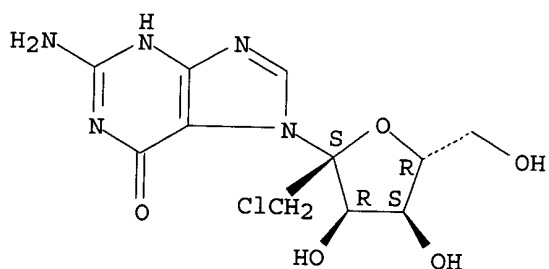


RN 54401-16-0 CAPLUS

CN 6H-Purin-6-one, 2-amino-7-(1-chloro-1-deoxy-.beta.-D-psicofuranosyl)-1,7-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

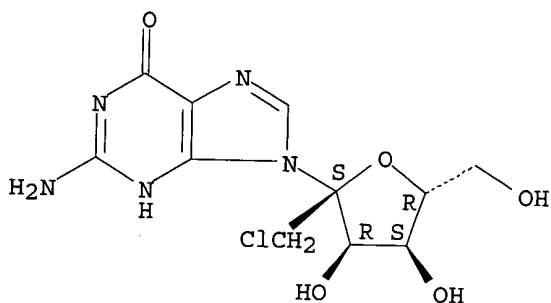
09567863



RN 54401-17-1 CAPLUS

CN 6H-Purin-6-one, 2-amino-9-(1-chloro-1-deoxy-.beta.-D-psicofuranosyl)-1,9-dihydro- (9CI) (CA INDEX NAME)

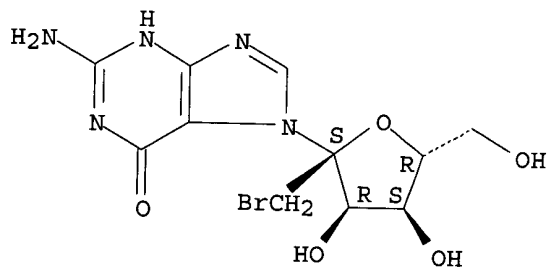
Absolute stereochemistry.



RN 54401-18-2 CAPLUS

CN 6H-Purin-6-one, 2-amino-7-(1-bromo-deoxy-.beta.-D-psicofuranosyl)-1,7-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

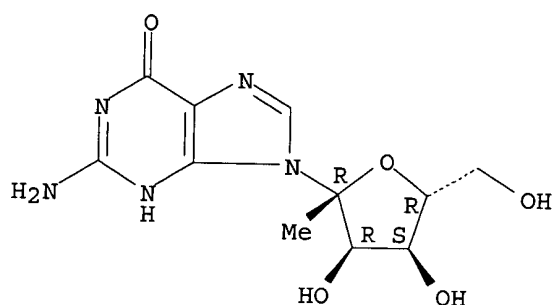


RN 54401-19-3 CAPLUS

CN Guanosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

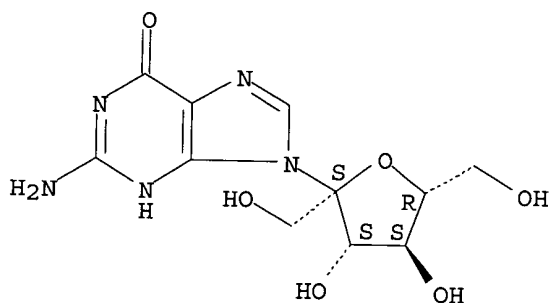
Absolute stereochemistry.

09567863



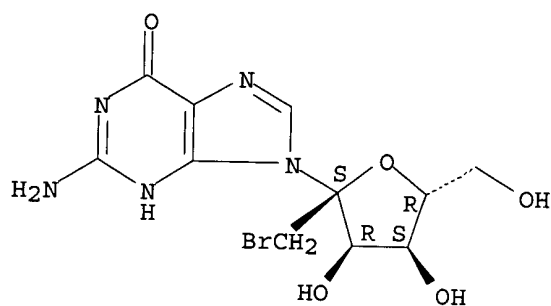
RN 54401-20-6 CAPLUS
CN 6H-Purin-6-one, 2-amino-9-α-D-fructofuranosyl-1,9-dihydro- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



RN 54477-03-1 CAPLUS
CN 6H-Purin-6-one, 2-amino-9-(1-bromo-1-deoxy-β-D-psicofuranosyl)-1,9-dihydro- (9CI) (CA INDEX NAME)

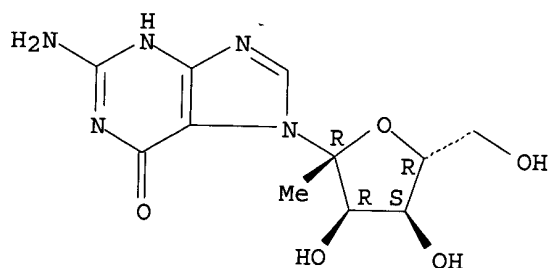
Absolute stereochemistry.



RN 54477-04-2 CAPLUS
CN 6H-Purin-6-one, 2-amino-7-(1-deoxy-β-D-psicofuranosyl)-1,7-dihydro- (9CI) (CA INDEX NAME)

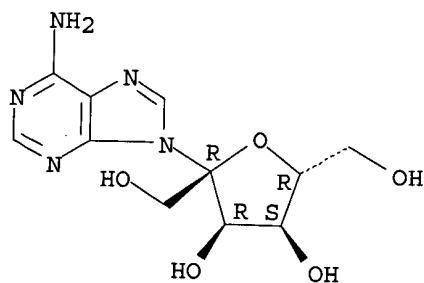
Absolute stereochemistry.

09567863



L3 ANSWER 117 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1975:11023 CAPLUS
DN 82:11023
TI In vitro antimalarial activity of nucleic acid precursor analogs in the simian malaria Plasmodium knowlesi
AU McCormick, Gerald J.; Canfield, Craig J.; Willet, Gloria P.
CS Div. Med., Walter Reed Army Inst. Res., Washington, DC, USA
SO Antimicrobial Agents and Chemotherapy (1974), 6(1), 16-21
CODEN: AMACCQ; ISSN: 0066-4804
DT Journal
LA English
AB Incorporation of adenosine or orotic acid into P. knowlesi nucleic acids in vitro was effectively inhibited by many nucleic acid precursor analogs, including 3' analogs of purine nucleosides, many of the 6-position analogs of purine bases and nucleosides, and 5-position analogs of orotic acid. Only a few compds. inhibited methionine incorporation into protein, and in each instance adenosine or orotic acid incorporation also was inhibited. Some compds. inhibited adenosine or orotic acid incorporation into both RNA and DNA whereas others inhibited incorporation into one nucleic acid only. The qual. and quant. differences suggest that this exptl. system may be appropriate for investigation of metabolic pathways of the malaria parasite, as well as for demonstration of antimalarial activity of candidate antimalarial drugs.
IT 1874-54-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimalarial activity of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-β-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

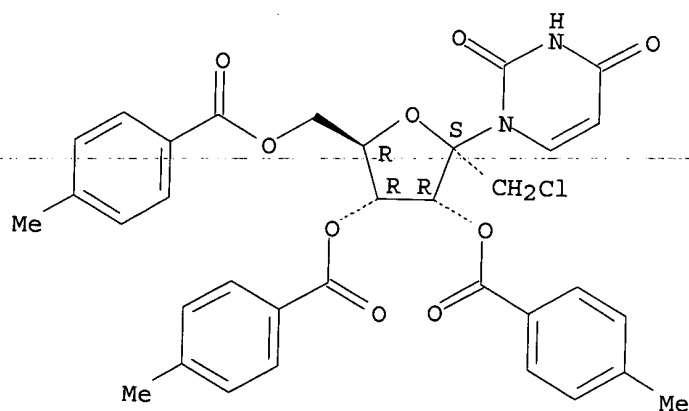


L3 ANSWER 118 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1974:478179 CAPLUS
DN 81:78179
TI Nucleic acid components and their analogs. CLXV. Synthesis of

09567863

AU 1-.beta.-D-psicofuranosyluracil and 1-.beta.-D-psicofuranosylcytosine
CS Hrebabecky, Hubert; Farkas, Jiri
SO Cesk. Akad. Ved, Prague, Czech.
Collection of Czechoslovak Chemical Communications (1974), 39(4), 1098-106
CODEN: CCCCAK; ISSN: 0010-0765
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB 3,4,5,6-Tetra-O-acetyl-1-deoxy-1-diazo-D-psicose in MeOH was kept at
60.degree. in 0.1M HClO4 and the mixt., neutralized with Zerolite FF
(carbonate) ion exchange resin, gave 80% D-psicose. Reaction of
2,4-bis(trimethylsiloxy)pyrimidine with 2-bromo-1,3,4,6-tetra-O-p-toluoyl-
D-psicofuranose in MeCN in the presence of Hg(OAc)2 gave I (R =
p-MeC6H4CO) hydrolysis gave I (R = H). Similarly, 2-(trimethylsiloxy)-4-
(N-trimethylsilylacetamido)pyrimidine was converted to II. I was also
prepd. by alk. methanolysis of 1',2-anhydro-1-(3,4,6-tri-O-p-toluoyl-
.beta.-D-psicofuranosyl)uracil.
IT 38946-87-1P 53263-32-4P 53263-33-5P
53263-34-6P 53263-35-7P 53263-44-8P
53263-45-9P 53318-75-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 38946-87-1 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-chloro-1-deoxy-3,4,6-tris-O-(4-
methylbenzoyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

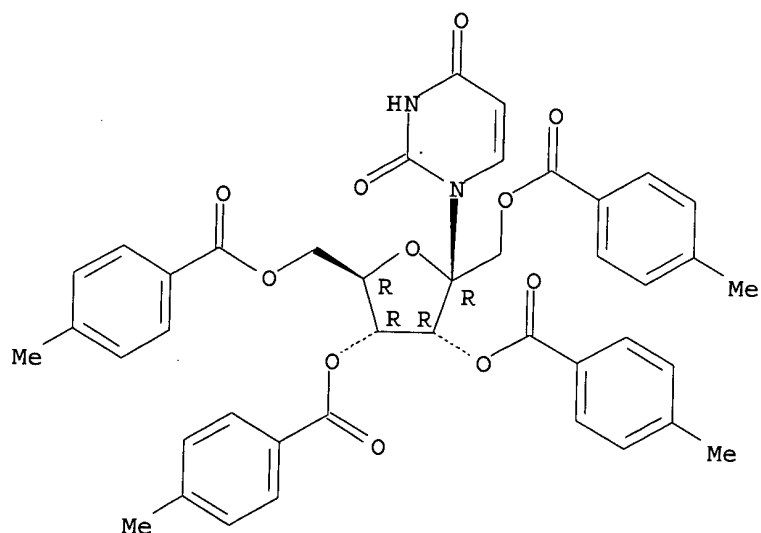
Absolute stereochemistry.



RN 53263-32-4 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,3,4,6-tetrakis-O-(4-methylbenzoyl)-.beta.-
D-psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

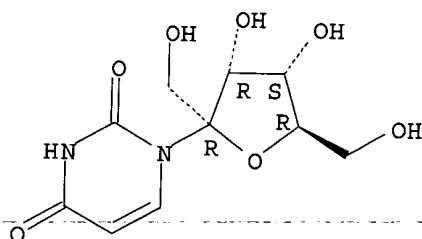
09567863



RN 53263-33-5 CAPLUS

CN Uridine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

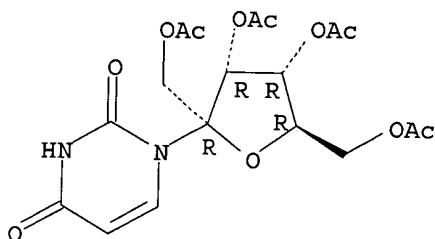
Absolute stereochemistry.



RN 53263-34-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,3,4,6-tetra-O-acetyl-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

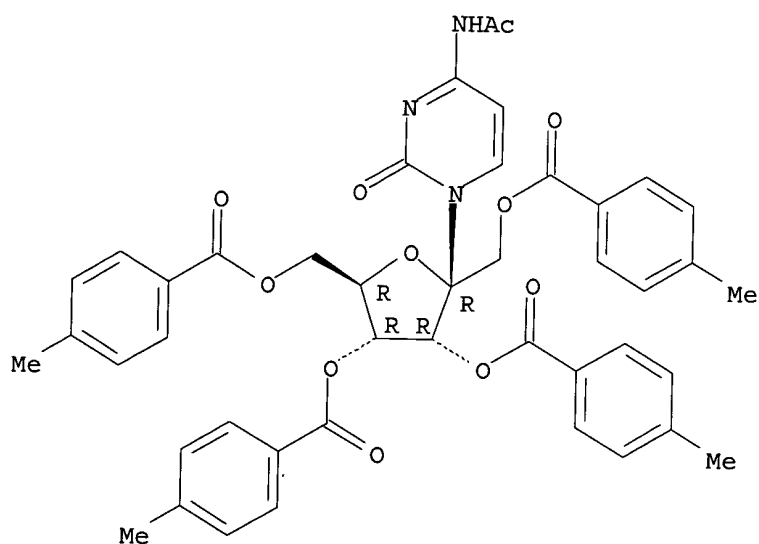


RN 53263-35-7 CAPLUS

CN Acetamide, N-[1,2-dihydro-2-oxo-1-[1,3,4,6-tetrakis-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

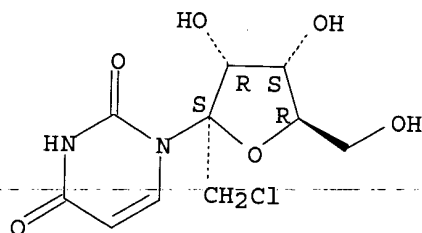
09567863



RN 53263-44-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1-chloro-1-deoxy-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

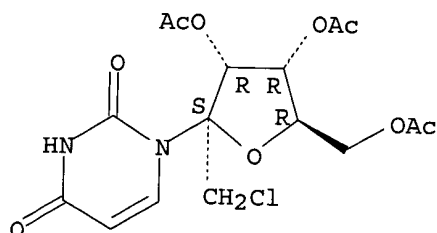
Absolute stereochemistry.



RN 53263-45-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3,4,6-tri-O-acetyl-1-chloro-1-deoxy-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

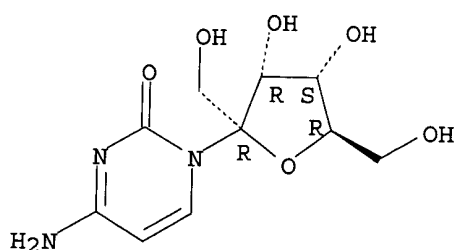
Absolute stereochemistry.



RN 53318-75-5 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



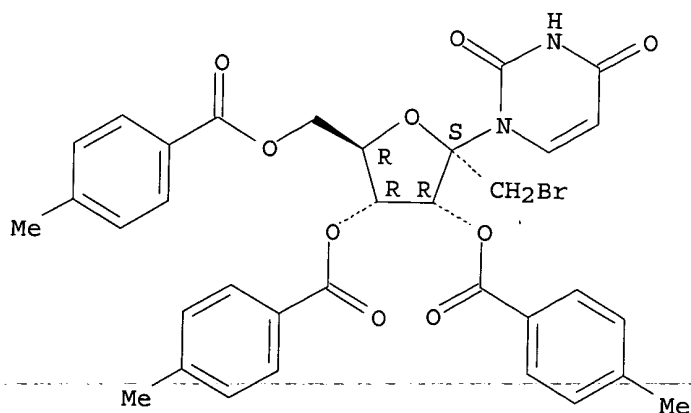
IT 38946-85-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with lithium azide and barium methoxide)

RN 38946-85-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- L3 ANSWER 119 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1974:48297 CAPLUS
 DN 80:48297
 TI Nucleic acid components and their analogs. CLXI. Synthesis of some 1-amino-1-deoxy-D-psicose derivatives
 AU Hrebabecky, Hubert; Krupicka, Josef; Farkas, Jiri
 CS Cesk. Akad. Ved, Prague, Czech.
 SO Collection of Czechoslovak Chemical Communications (1973), 38(10), 3181-8
 CODEN: CCCCAK; ISSN: 0010-0765
 DT Journal
 LA English
 AB The HCl-catalyzed methanolysis of 3,4,5,6-tetra-O-acetyl-1-azido-1-deoxy-D-psicose gave an anomeric mixt. of Me 1-azido-1-deoxy-D-psicofuranosides which was benzoylated to yield pure Me 1-azido-3,4,6-tri-O-benzoyl-1-deoxy-.beta.-D-psicofuranoside (I). I kept in NH₃/MeOH gave Me 1-azido-1-deoxy-.beta.-D-psicofuranoside. Hydrogenation of I in AcOEt and Ac₂O over 5% PdO/BaSO₄ gave Me 1-acetamido-3,4,6-tri-O-benzoyl-1-deoxy-.beta.-D-psicofuranoside (II). Reaction of I in CH₂Cl₂ with HBr/AcOH and then with the chloromercuri salt of 6-benzamidopurine gave 9-(3,4,6-tri-O-benzoyl-1-bromo-1-deoxy-.beta.-D-psicofuranosyl)-6-benzamidopurine. II in CH₂Cl₂ treated with HBr/AcOH gave 1-acetamido-3,4,6-tri-O-benzoyl-1-deoxy-D-psico-2,3-furanosene. The above anomalous reactions of I and II with HBr were discussed.
 IT 51296-47-0P 51296-48-1P

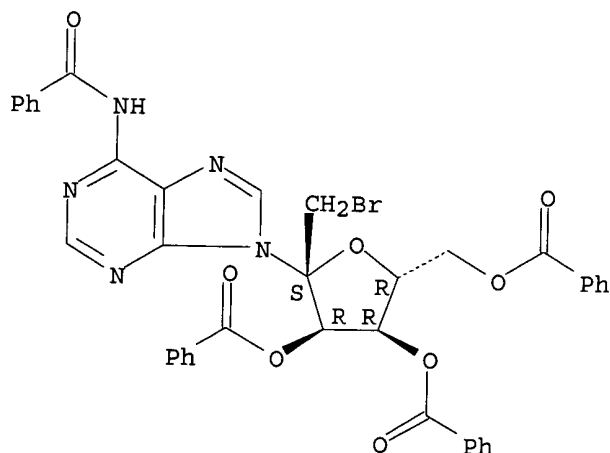
09567863

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 51296-47-0 CAPLUS

CN Benzamide, N-[9-(3,4,6-tri-O-benzoyl-1-bromo-1-deoxy-.beta.-D-psicofuranosyl)-9H-purin-6-yl]- (9CI) (CA INDEX NAME)

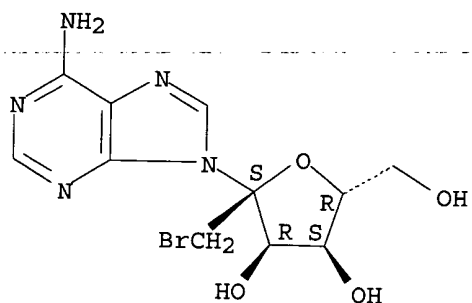
Absolute stereochemistry.



RN 51296-48-1 CAPLUS

CN 9H-Purin-6-amine, 9-(1-bromo-1-deoxy-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 120 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1974:1073 CAPLUS

DN 80:1073

TI Bacterial synthesis of nucleotides. XII. Acceptor specificity observed with crude preparation of nucleoside phosphotransferases

AU Kamimura, Akira; Mitsugi, Koji; Okumura, Shinji

CS Cent. Res. Lab., Ajinomoto Co., Inc., Kawasaki, Japan

SO Agricultural and Biological Chemistry (1973), 37(9), 2037-43
CODEN: ABCHA6; ISSN: 0002-1369

DT Journal

LA English

AB The acceptor specificities of bacterial nucleoside phosphotransferase were investigated by phosphorylating various kinds of nucleoside analogs. The bacteria belonging to the A group (5'-nucleotide forming) specifically phosphorylated the primary alc. at 5'-position of nucleosides and their analogs, such as adenine xyloside, psicofuranine, and pseudouridine,

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whereas the others belonging to B group [3'(2')-nucleotide forming] phosphorylated the secondary alc. at 3'(2')-position. The phosphorylation at the 5'-primary alc. with the bacteria belonging to the A group, however, was prohibited mainly by the phosphoryl or NH₃⁺ radical at the 3'-position, as obsd. in the case of the 3'-nucleotide or aminonucleoside (or puromycin), depending on the steric conformation around the 3'-position of the acceptor. Both types of nucleoside phosphotransferases were also able to phosphorylate the nucleoside having a C-C linkage between the base and sugar moieties.

IT 1874-54-0

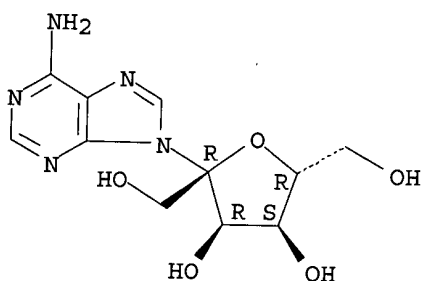
RL: BIOL (Biological study)

(as nucleoside phosphotransferase acceptor)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 121 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1973:439520 CAPLUS

DN 79:39520

TI Steric requirements for binding of adenosine to a membrane carrier in canine heart

AU Olsson, Ray A.; Gentry, Mary K.; Snow, Jerry A.; Frick, G. Peter; Townsend, R. Stanley

CS Walter Reed Army Inst. Res., Walter Reed Army Med. Cent., Washington, DC, USA

SO Biochimica et Biophysica Acta (1973), 311(2), 242-50
CODEN: BBACAQ; ISSN: 0006-3002

DT Journal

LA English

AB The steric requirements for the binding of adenosine to its putative membrane carrier in dog hearts were studied by testing the ability of adenosine analogs infused intracoronary to inhibit the uptake of adenosine-8-14C. The affinity of adenosine for the carrier appeared to depend on the purinyl 6-amino group, the 2'- and 3'-hydroxyls, and the anti conformation at the glycosidic bond. There was very little bulk tolerance at the site of attachment of the sugar hydroxyls. The interaction of adenosine and its carrier may be an example of active site-directed specificity.

IT 1874-54-0

RL: BIOL (Biological study)

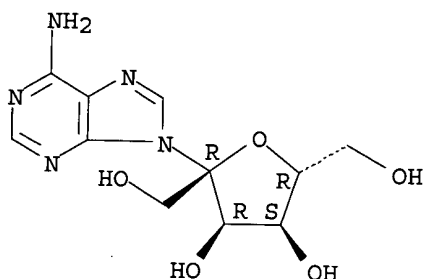
(adenosine binding by heart membrane carrier in response to)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

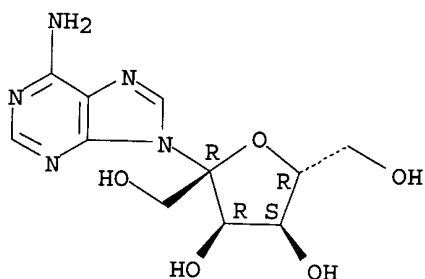
Absolute stereochemistry.

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L3 ANSWER 122 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1973:95609 CAPLUS
DN 78:95609
TI Mediated transport of nucleosides by human erythrocytes. Specificity toward purine nucleosides as permeants
AU Cass, Carol E.; Paterson, A. R. P.
CS Cancer Res. Unit, Univ. Alberta, Edmonton, AB, Can.
SO Biochimica et Biophysica Acta (1973), 291(3), 734-46
CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
AB Transport of uridine and thymidine across the plasma membrane of human erythrocytes is mediated by a facilitated diffusion mechanism with broad specificity toward the base portion and narrow specificity toward the sugar portion of pyrimidine nucleosides. Specificity of this mechanism was further investigated by measuring efflux of radioactivity when erythrocytes contg. radioactive uridine were incubated in medium contg. purine nucleosides. Adenosine, guanosine, inosine, and arabinosyladenine accelerated uridine efflux and were therefore considered substrates for the transport mechanism. 6-Thioinosine, 6-thioguanosine, and several S-substituted 6-thiopurine ribonucleosides inhibited efflux of radioactive uridine. Adenine nucleosides with sugar moieties other than ribose or arabinose inhibited or had no effect on uridine efflux.
IT 1874-54-0
RL: BIOL (Biological study)
(transport of, by erythrocytes)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

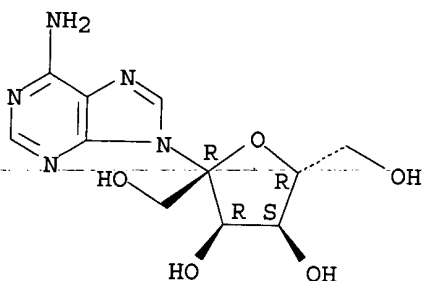


L3 ANSWER 123 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1973:80224 CAPLUS
DN 78:80224
TI Action of rubiflavin and other cytostatic antibiotics on Euglena gracilis
AU Ebringer, L.

09567863

CS Dep. Microbiol., Komensky Univ., Bratislava, Czech.
SO Neoplasma (1972), 19(6), 579-89
CODEN: NEOLA4; ISSN: 0028-2685
DT Journal
LA English
AB Of the 29 cytostatic antibiotics tested, 10 induced a hereditary loss of plastids in *E. gracilis*. Among the inhibitors of nucleic acid synthesis, this hereditary change was brought about by only the inhibitors of DNA synthesis, rubiflavin [11016-71-0], sarkomycin [489-21-4], mitomycin B [4055-40-7], N-methylmitomycin [26840-33-5], porfiromycin [801-52-5], anthramycin [4803-27-4], edeine [11006-90-9], and streptonigrin [3930-19-6]. The inhibitors of RNA synthesis and the inhibitors of purine and pyrimidine nucleotide synthesis did not cause permanent bleaching. Amicetin [17650-86-1] and pactamycin [23668-11-3], which have antitumor activity, induced hereditary aplastidy of euglenas, while gougerotin did not. Mitomycin derivs., which have a methyl group on their aziridine N, showed bleaching activity, whereas derivs. with an H in this position did not. This species appears to be a suitable model for the study of cytostatic antibiotics, mainly those attacking DNA.
IT 1874-54-0
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(*Euglena gracilis* response to)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 124 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1972:502107 CAPLUS
DN 77:102107
TI Nucleic acid components and their analogs. CXLIX. Synthesis of pyrimidine nucleosides derived from 1-deoxy-D-psicose
AU Hrebabecky, Hubert; Farkas, Jiri; Sorm, Frantisek
CS Cesk. Akad. Ved, Prague, Czech.
SO Collection of Czechoslovak Chemical Communications (1972), 37(6), 2059-65
CODEN: CCCCAK; ISSN: 0010-0765
DT Journal
LA English
AB Reaction of 3,4,6-tri-O-p-toluoyl-1-bromo-1-deoxy-D-psicofuranosyl bromide (I) with 2,4-bis(trimethylsilyloxy)pyrimidine in MeCN in the presence of Hg(OAc)₂ (silylation process) gave 17% 1-(3,4,6-tri-O-p-toluoyl-1-bromo-1-deoxy-.beta.-D-psicofuranosyl)uracil. This was reduced with tributyltin hydride in C₆H₆ in the presence of 2'-azobis(isobutyronitrile) and the protecting groups were removed with Ba(OMe)₂ in MeOH at 0.degree. to give 1-(1-deoxy-.beta.-D-psicofuranosyl)uracil. 1-(1-Deoxy-.beta.-D-psicofuranosyl)thymine and 1-(1-deoxy-.beta.-D-psicofuranosyl)cytosine were prepd. analogously from 2,4-bis(trimethylsilyloxy)-5-methylpyrimidine and 2-trimethylsilyloxy-4-(N-trimethylsilylacetamido)pyrimidine, resp.

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Treatment of monomercurithymine with I gave only 9% 1-(3,4,6-tri-O-p-toluoyl-1-bromo-1-deoxy-.beta.-D-psicofuranosyl)-thymine. The low yields were ascribed to the elimination of HBr.

IT 38946-85-9P 38946-86-0P 38946-87-1P

38946-88-2P 38946-89-3P 38946-90-6P

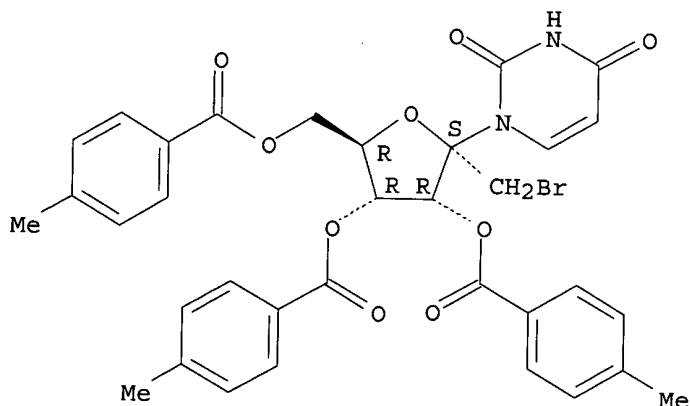
38946-91-7P 39030-83-6P 39030-84-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 38946-85-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

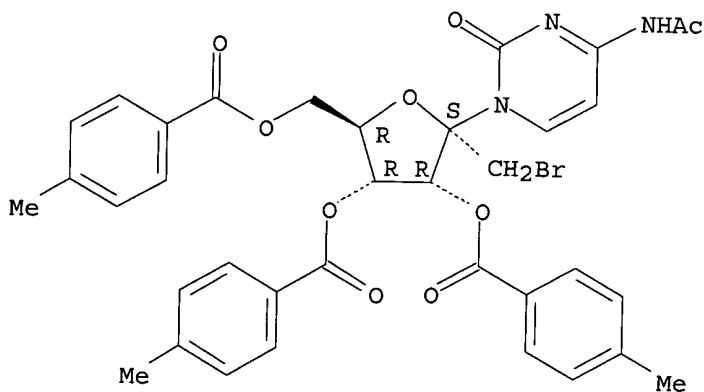
Absolute stereochemistry.



RN 38946-86-0 CAPLUS

CN Acetamide, N-[1-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

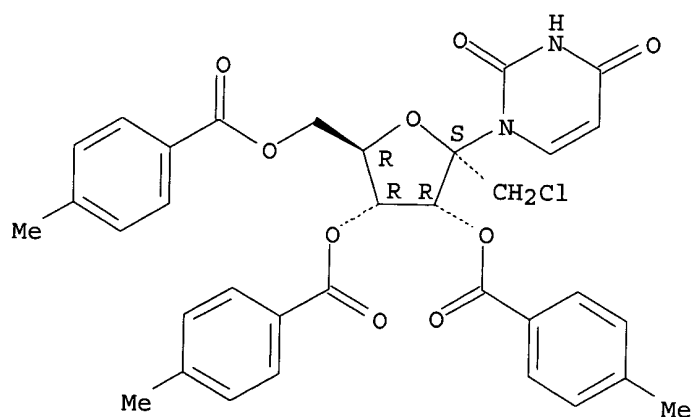


RN 38946-87-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-chloro-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

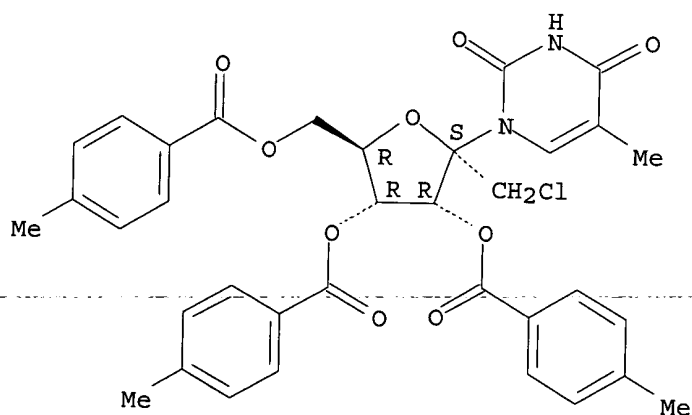
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RN 38946-88-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-chloro-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

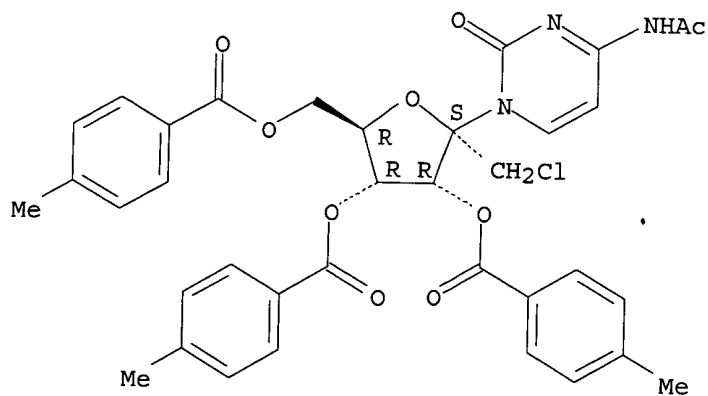
Absolute stereochemistry.



RN 38946-89-3 CAPLUS

CN Acetamide, N-[1-[1-chloro-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

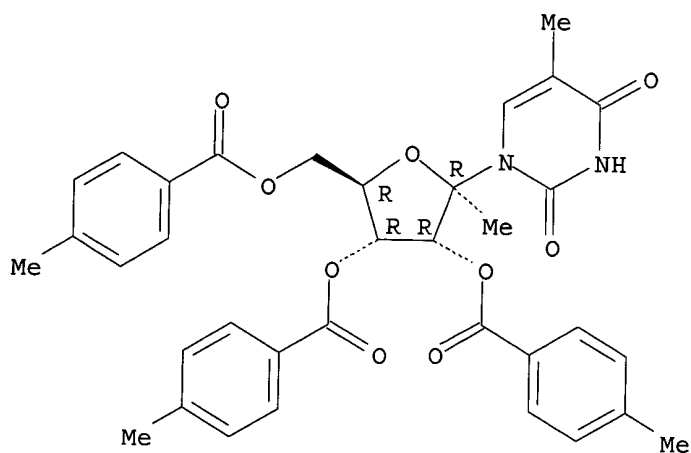


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RN 38946-90-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-
.beta.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

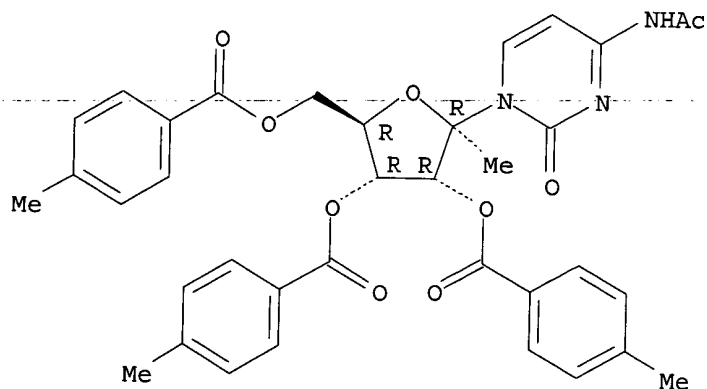
Absolute stereochemistry.



RN 38946-91-7 CAPLUS

CN Acetamide, N-[1-[1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-
psicofuranosyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

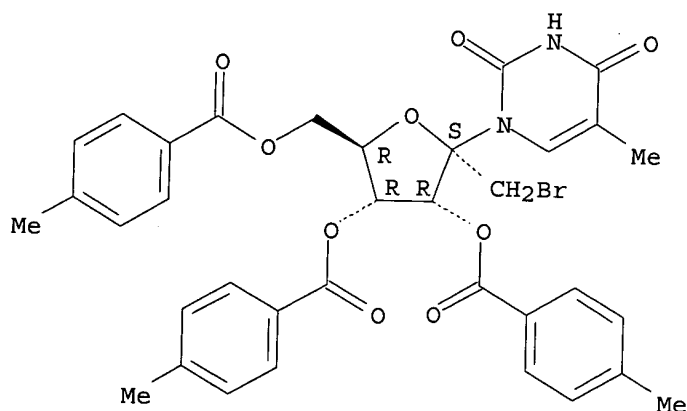


RN 39030-83-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-bromo-1-deoxy-3,4,6-tris-O-(4-
methylbenzoyl)-.beta.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

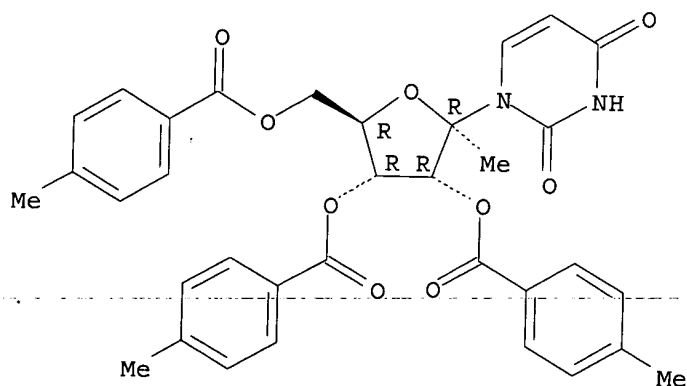
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RN 39030-84-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



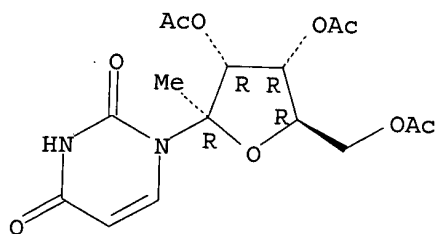
IT 38946-92-8 38946-93-9 38946-94-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(uv and CD spectra)

RN 38946-92-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3,4,6-tri-O-acetyl-1-deoxy-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

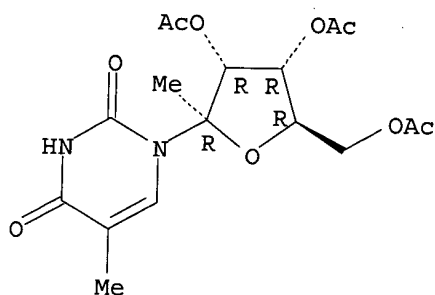


RN 38946-93-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 5-methyl-1-(3,4,6-tri-O-acetyl-1-deoxy-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

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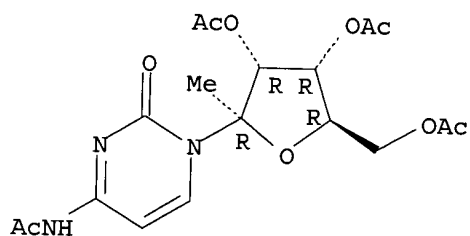
Absolute stereochemistry.



RN 38946-94-0 CAPLUS

CN Acetamide, N-[1,2-dihydro-2-oxo-1-(3,4,6-tri-O-acetyl-1-deoxy-.beta.-D-psicofuranosyl)-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



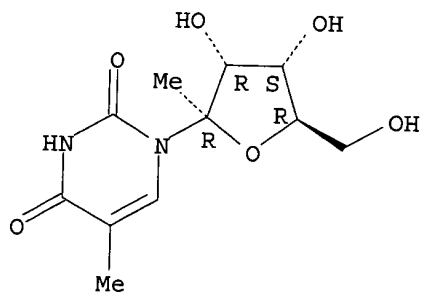
IT 34441-68-4 38946-83-7 38946-84-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(uv and CD spectra wkn)

RN 34441-68-4 CAPLUS

CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

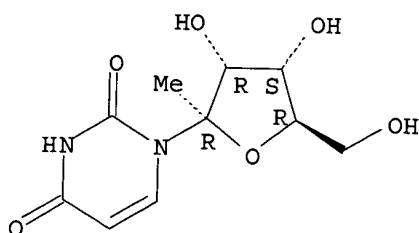


RN 38946-83-7 CAPLUS

CN Uridine, 1'-C-methyl- (9CI) (CA INDEX NAME)

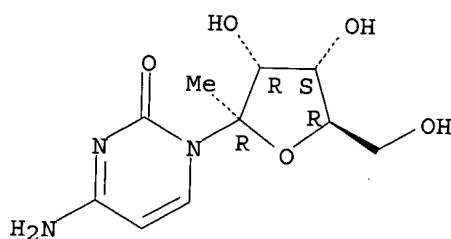
Absolute stereochemistry.

09567863



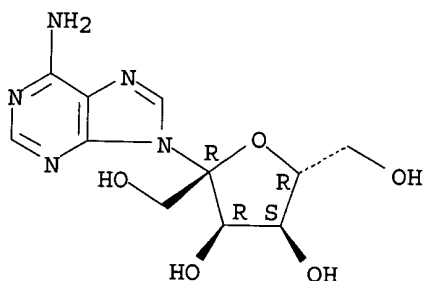
RN 38946-84-8 CAPLUS
CN Cytidine, 1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



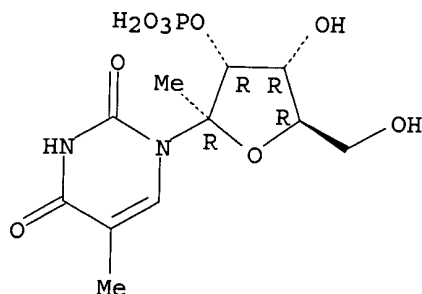
L3 ANSWER 125 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1972:82290 CAPLUS
DN 76:82290
TI Membrane transport of nucleosides in rabbit polymorphonuclear leukocytes
AU Taube, Rebekah A.; Berlin, Richard D.
CS Dep. Physiol., Harvard Med. Sch., Boston, MA, USA
SO Biochimica et Biophysica Acta (1972), 255(1), 6-18
CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
AB The membrane transport of nucleosides in rabbit polymorphonuclear leukocytes was examd. by use of a rapid sampling technique. Both purine and pyrimidine nucleosides are transported by a single saturable system as indicated by the identity of their Km's and Ki's against a spectrum of nucleosides. The specificity of the carrier was examd. in detail. Adenosine (Km = 0.010mM, Vmax .apprx.10 pmoles/106 cells per 45 sec) has the highest affinity for the system. Its fate after uptake is deamination and subsequent conversion to nucleotide. The most crit. structural requirements for binding include the pyrimidine base moiety and a 3'-OH configuration on pentose, but other groups make significant contributions to binding. From an anal. of the substrate specificity it is argued that changes in the conformation of the carrier active site are induced by the substrate.
IT 1874-54-0
RL: BIOL (Biological study)
(adenosine transport inhibition by, in leukocyte)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- L3 ANSWER 126 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1971:510540 CAPLUS
 DN 75:110540
 TI Nucleic acid components and their analogs. CXXXVIII. Synthesis of 2',3'-cyclic phosphates derived from some pyrimidine ribonucleosides and their behavior towards pancreatic ribonuclease and ribonuclease T2
 AU Holy, Antonin; Bald, R.
 CS Cesk. Akad. Ved, Prague, Czech.
 SO Collection of Czechoslovak Chemical Communications (1971), 36(8), 2809-23
 CODEN: CCCCAK; ISSN: 0010-0765
 DT Journal
 LA English
 AB Starting from unprotected ribonucleosides, the 2',3'-cyclic phosphates of 5-chloro-, 5-fluoro-, 5-amino-, 5-dimethylamino-, 5-hydroxy-, 5-ethyl-, 6-methyl-, and 5,6-dimethyluridine, 5-methyl-6-azauridine, C1'-methylthymidine, isocytidine, orotidine, and N3-methylorotidine were prepd. via the nucleoside 2'(3')-phosphites. The 2',3'-cyclic phosphates of 2-thiouridine, 2-thio-6-azauridine, and 4-thio-6-azauridine were prepd. by reaction of the nucleoside with H3PO4 in the presence of Cl3CCN. Methylation of 6-azauridine 2',3'-cyclic phosphate (I) with Me2-NCH(OMe)2 in DMF at 100.degree. gave I N3-Me deriv. Reaction of 5'-O-di(p-methoxyphenyl)phenylmethyl-5-nitrouridine, 2-cyanoethyl phosphate, and N,N'-dicyclohexylcarbodiimide gave (after removal of protecting groups in alk. and acidic media) 5-nitrouridine (II) 2'(3')-phosphate. This treated with ClCO2Et and Bu3N gave II 2',3'-cyclic phosphate. The specificity of these 2',3'-cyclic phosphates to pancreatic ribonucleases and ribonucleases T2 was detd.
 IT 33782-29-5 33782-30-8 34441-68-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (chromatog. and electrophoresis of)
 RN 33782-29-5 CAPLUS
 CN Thymine, 1-(1-deoxy-.beta.-D-psicofuranosyl)-, 3'-(dihydrogen phosphate) (8CI) (CA INDEX NAME)

Absolute stereochemistry.

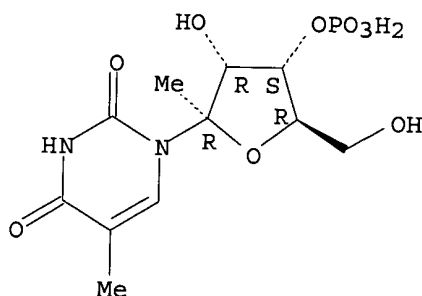


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RN 33782-30-8 CAPLUS

CN Thymine, 1-(1-deoxy-.beta.-D-psicofuranosyl)-, 4'-(dihydrogen phosphate)
(8CI) (CA INDEX NAME)

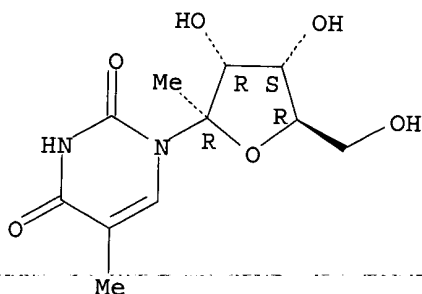
Absolute stereochemistry.



RN 34441-68-4 CAPLUS

CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

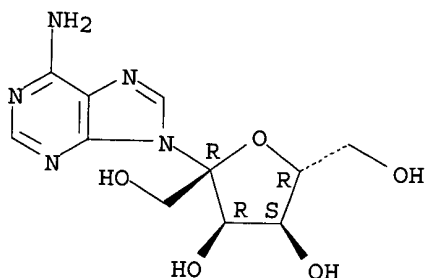


- L3 ANSWER 127 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1970:404136 CAPLUS
DN 73:4136
TI Mass spectrometry of nucleic acid components. Analogs of adenosine
AU Shaw, Stanley James; Desiderio, Dominic M.; Tsuboyama, Kaoru; McCloskey, James A.
CS Inst. for Lipid Res., Baylor Coll. of Med., Houston, TX, USA
SO Journal of the American Chemical Society (1970), 92(8), 2510-22
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB The mass spectra of adenosine and 32 of its analogs were studied in detail. Principal fragmentation pathways for structurally significant ions were detd. and decompn. mechanisms postulated, based on metastable transitions, deuterium and substituent labels, and high-resolution mass spectra. The major ions M - 30, base + 44, and base + 30 are proposed to arise from initial transfer of sugar hydroxyl hydrogens to the charge-localized purine base. Methylation at N6 is characterized by elimination of MeN6 with rearrangement of either H or a Me group as previously reported for the corresponding bases. 2'-O-Methylation leads to a unique sugar fragment resulting from elimination of the base plus a 3'- or 5'-hydroxyl H. Anomers are readily distinguished by their mass spectra, but steric orientation of sugar hydroxyls cannot be detd. directly. However the abundance of the M - 30 ion was found to depend

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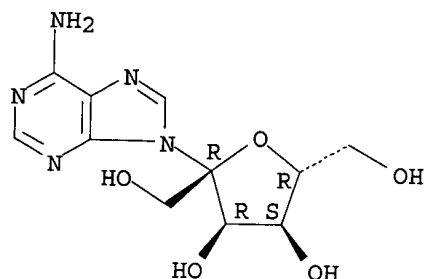
strongly on the steric accessibility of C-5' to the base.
IT 1874-54-0
RL: PRP (Properties)
(mass spectrum of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



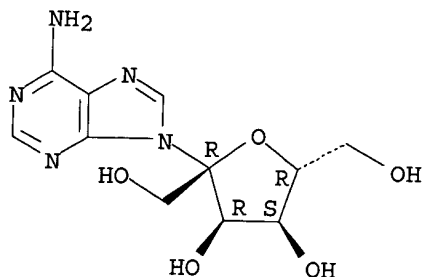
L3 ANSWER 128 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1970:96906 CAPLUS
DN 72:96906
TI Alteration of the conformational response and inhibition of xanthosine
5'-phosphate aminase by adenine glycosides
AU Zyk, Naomi; Citri, Nathan; Moyed, H. S.
CS Sch. of Med., Univ. of Southern California, Los Angeles, CA, USA
SO Biochemistry (1970), 9(3), 677-83
CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB Modification of the conformational response of xanthosine 5'-phosphate
aminase to its substrate, xanthosine 5'-phosphate, by inorg. pyrophosphate
was essential for its sensitivity to inhibition by adenine glycosides.
The millimolar concn. of xanthosine 5'-phosphate which induces a
half-maximal conformational response, the conformational response const. or
Kcr, is 0.1. In the presence of inorg. pyrophosphate this value is
reduced 33-fold. Such modification can be eliminated by chem. treatment
or genetic alteration with the further consequences of loss or diminution
of sensitivity to irreversible inhibition by the adenine glycoside
antibiotics, psicofuranine and decoyinine, as well as diminution of
sensitivity to reversible inhibition by adenosine. Catalytic activity
however is not appreciably affected by elimination of the modifying action
of inorg. pyrophosphate.
IT 1874-54-0
RL: BIOL (Biological study)
(guanylate synthetase inhibition by, conformational response alteration
in relation to)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



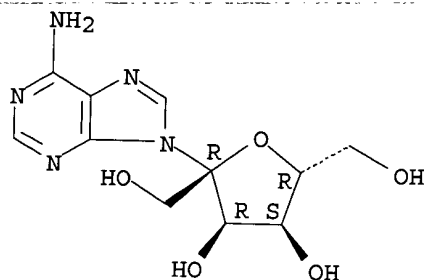
- L3 ANSWER 129 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1970:19329 CAPLUS
 DN 72:19329
 TI Purine-sensitive mutants of *Bacillus subtilis*. I. Properties of an adenosine-sensitive mutant
 AU Kida, Makoto; Kawashima, Fumiko; Imada, Akira; Nogami, Ikuo; Suhara, Ikuo; Yoneda, Masahiko
 CS Res. Develop. Div., Takeda Chem. Ind., Ltd., Osaka, Japan
 SO Journal of Biochemistry (Tokyo, Japan) (1969), 66(4), 487-92
 CODEN: JOBIAO; ISSN: 0021-924X
 DT Journal
 LA English
 AB An adenosine-sensitive mutant was derived from a strain of *B. subtilis*. The growth of the mutant was strongly inhibited by the presence of adenosine at 0.1mM and the inhibition was completely reversed by the addn. of guanine derivs., but not by other purine and pyrimidine derivs. The growth of this mutant was also inhibited by psicofuranine (9-D-psicofuranosyl-6-aminopurine), which is a structural analog of adenosine and is known to suppress GMP synthesis by inhibiting XMP aminase [EC 6.3. 4.1]. Adenosine-resistant mutants were derived from the sensitive mutant. XMP aminase was partially purified from the adenosine-sensitive and resistant strains as well as the parent strain. The activity of XMP aminase from the sensitive strain was strongly inhibited by either adenosine or psicofuranine, while the enzymes from the resistant and parent strains were little affected by both inhibitors. Thus the adenosine sensitivity of the mutant may be attributed to the inhibition of its XMP aminase by adenosine.
 IT 1874-54-0
 RL: BIOL (Biological study)
 (guanylate synthetase inhibition by, of adenosine-sensitive *Bacillus subtilis*)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-β-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



09567863

L3 ANSWER 130 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1969:75364 CAPLUS
DN 70:75364
TI Production of nucleic acid-related substances by fermentative processes.
XX. Fermentative production of 5'-purine ribonucleotides by
Brevibacterium ammoniagenes: accumulation of 5'-XMP in the presence of
psicofuranine
AU Komuro, Toshio; Nara, Takashi; Misawa, Masanaru; Kinoshita, Shukuo
CS Tokyo Res. Lab., Kyowa Hekko Kogyo Co., Tokyo, Japan
SO Agricultural and Biological Chemistry (1969), 33(2), 230-6
CODEN: ABCHA6; ISSN: 0002-1369
DT Journal
LA English
AB Psicofuranine (6-amino-9-(.beta.-D-psicofuranosyl) purine) caused B.
ammoniagenes to accumulate xanthosine monophosphate (5'-XMP) in the
fermentation medium. Psicofuranine was a specific inhibitor of XMP
aminase and thus inhibited the conversion of 5'-XMP to 5'-TMP. It was
previously reported that in 5'-IMP fermentation with B. ammoniagenes
pantothenate and thiamine, in addn. to biotin, were exclusively required.
The requirement for both vitamins was also observed in 5'-XMP production
induced by the antibiotic. Addn. of Mn promoted the bacterial growth
greatly and inhibited IMP production, whereas the XMP production induced
by psicofuranine was not affected. The accumulation of XMP induced by the
antibiotic was completely suppressed by the presence of purine derivs.
such as guanine and xanthine derivs., and partially by hypoxanthine.
IT 1874-54-0
RL: BIOL (Biological study)
(xanthosine phosphate accumulation by Brevibacterium ammoniagenes in
presence of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)
Absolute stereochemistry.



L3 ANSWER 131 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1969:38047 CAPLUS
DN 70:38047
TI Nucleosides
IN Onodera, Kinoshin; Hirano, Shigehiro
PA Seikagaku Kogyo Co., Ltd.
SO Jpn. Tokkyo Koho, 3 pp.
CODEN: JAXXAD
DT Patent
LA Japanese
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 43017970 B4 19680730 JP 19650303
AB Prepn. of nucleosides by condensation of purine or pyrimidine base with a

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sugar in the presence of P2O5 is described. Thus, 10 g. P2O5 in 100 ml. HCONMe2 was added in 10 min. with stirring to 100 ml. HCONMe2 contg. 10 g. 2,3,4,6-tetra-O-acetyl-D-glucopyranose and 5.7 g. theophylline. The mixed soln. was shaken 20 hrs. at 60-70.degree.. After cooling, the soln. was poured into ice water, extd. with CHCl3 and worked up to give 70% 7-(tetra-O-acetyl-.beta.-D-glucopyranosyl)theophylline (I), m. 145-6.degree., [.alpha.]20D -14.5.degree.. Deacetylation of 5.1 g. I in NH4OH-MeOH gave 90% 7-D-glucopyranosyltheophylline, m. 169.degree., [.alpha.]20D 39.degree. (c 1.0, H2O).

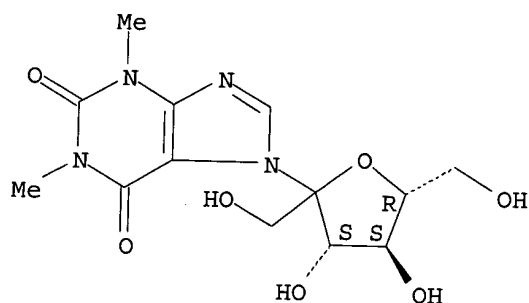
IT 23477-32-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 23477-32-9 CAPLUS

CN Theophylline, 7-D-fructofuranosyl- (8CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 132 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1969:25928 CAPLUS

DN 70:25928

TI Adenine glycoside site of xanthosine-5'-phosphate aminase

AU Donovan, Kerry L.; Rowe, Janet A.; Moyed, H. S.

CS Sch. of Med., Univ. of Southern California, Los Angeles, CA, USA

SO Antimicrobial Agents and Chemotherapy (1961-70) (1968), Volume Date 1967
289-96

CODEN: AACHAX; ISSN: 0074-9923

DT Journal

LA English

AB Psicofuranine (6-amino-9-D-psicofuranosyl-purine) (I) is a potent inhibitor of xanthosine-5'-phosphate (XMP) aminase (II). Kinetic anal., direct binding studies, and differential inactivation as a result of genetic or chem. modification were the methods used to investigate the binding site of I to the enzyme. Phys. and chem. evidence showed that I and other adenine glycoside inhibitors of II are bound in a region of the enzyme which can be distinguished from the active center. The redn. of the sensitivity of II to adenine glycosides by mutation was investigated. The turnover rates of mutant and parental aminases were compared to det. if the reduced sensitivity was caused by damage to the adenine glycoside site. This comparison showed that alteration of the adenine glycoside site appears to be accompanied by an alteration in the rate of synthesis of the aminase mol.

IT 1874-54-0

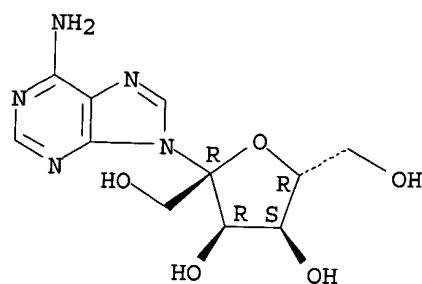
RL: PROC (Process)
(guanylate synthetase binding of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

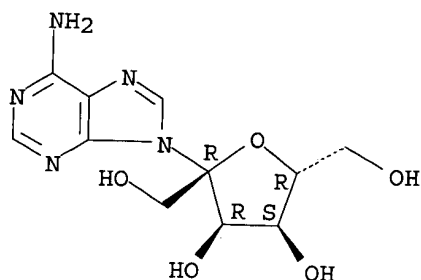
Absolute stereochemistry.

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L3 ANSWER 133 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1969:444 CAPLUS
DN 70:444
TI Mechanism of hydroxylamine inhibition of xanthosine-5'-phosphate aminase
AU Fukuyama, T. T.; Donovan, Kerry L.
CS Sch. of Med., Univ. of Southern California, Los Angeles, CA, USA
SO Journal of Biological Chemistry (1968), 243(21), 5798-801
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB The reaction of XMP aminase (EC 6.3.4.1) with hydroxylamine, XMP, and ATP results in the formation of 1 mole each of AMP and a deriv. of XMP, presumably 2-hydroxylamino deriv. of IMP, per mole of aminase. The deriv. is enzyme-bound, but can be released by extn. with trichloroacetic acid. The compd. is a powerful inhibitor of the aminase. These observations account for the ATP- and XMP-dependent inhibition of XMP aminase by hydroxylamine. The XMP deriv. is produced by reaction of hydroxylamine with a catalytic intermediate, adenylyl deriv. of XMP, the other product being AMP. An inhibitor of the formation of the catalytic intermediate, psicofuranine, also prevents the formation of the deriv.
IT 1874-54-0
RL: BIOL (Biological study)
(guanylate synthetase intermediate formation in presence of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 134 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1968:75915 CAPLUS
DN 68:75915
TI Incorporation of angustmycin C, a nucleosidic antibiotic, in ribonucleic acid in Escherichia coli
AU Beppu, Teruhiko; Nose, Masako; Arima, Kei
CS Univ. Tokyo, Tokyo, Japan

09567863

SO Agricultural and Biological Chemistry (1968), 32(2), 203-8
CODEN: ABCHA6; ISSN: 0002-1369

DT Journal

LA English

AB Addn. of 100 .mu.g. of angustmycin C (9-D-psicofuranosyl adenine)/ml. to an exponentially growing culture of E. coli which had been synthesizing .beta.-galactosidase in the presence of 10-4M thiomethylgalactoside inhibited enzyme synthesis as well as cell growth. Removal of the antibiotic resumed cell growth but only gradually increased .beta.-galactosidase synthesis, suggesting that some irreversible functional defect, possibly involving incorporation of the antibiotic into the nucleic acid, had been made during incubation with angustmycin C. Addn. of 3H-labeled angustmycin C to the exponentially growing E. coli culture rapidly incorporated radioactivity into the cold acid-insol. fraction, with 2.3% of the added antibiotic taken up by the cells and the largest amt. of radioactivity in the cells present in the RNA fraction. Isolation of RNA by phenol treatment of the disrupted cells and ethanol pptn. followed by zonal centrifugation in a sucrose d. gradient showed that the distribution of radioactivity coincides almost completely with the peaks of absorbance, indicating that RNA was labeled during incubation with tritiated angustmycin C. Hydrolysis of the RNA by a mixt. of snake venom, pancreatic ribonuclease I, and alk. phosphatase recovered intact angustmycin C, indicating incorporation of the antibiotic as a whole rather than just an exchange reaction with the adenine moiety of the nucleic acid. The direct incorporation of angustmycin C into RNA suggests there are some activation enzymes forming angustmycin C phosphate in E. coli cells and indicates that such an abnormal nucleotide formed in the cells may survive for a considerably longer period after removal of the antibiotic from the medium and cause the residual inhibitory effect on .beta.-galactosidase synthesis.

IT 1874-54-0

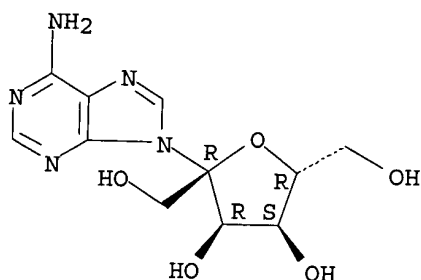
RL: PROC (Process)

(ribonucleic acid incorporation of, in Escherichia coli)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 135 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1968:75914 CAPLUS

DN 68:75914

TI Accumulation of xanthosine by Escherichia coli in the presence of Angustmycin C

AU Beppu, Teruhiko; Nose, Masako; Arima, Kei

CS Univ. Tokyo, Tokyo, Japan

SO Agricultural and Biological Chemistry (1968), 32(2), 197-202
CODEN: ABCHA6; ISSN: 0002-1369

DT Journal

LA English

09567863

AB Angustmycin C (6-amino-9-(.beta.-D-psicofuranosyl)purine) at serially increasing concns. up to 50 .mu.g./ml. inhibited E. coli cellular growth after a latent period, with growth then resuming at a lower rate even in the presence of high antibiotic concns. After a distinct latent period angustmycin C inhibited DNA and RNA biosynthesis in preference to protein synthesis and caused excretion of a compd. into the medium which was identified by uv absorption spectra, paper chromatog., and electrophoresis as xanthosine. The sp. activity of IMP dehydrogenase in E. coli cells increased 6 times during the course of growth in the presence of angustmycin C. Under the optimal conditions xanthosine accumulation reached 940 .mu.g./ml. in the presence of angustmycin C.

IT 1874-54-0

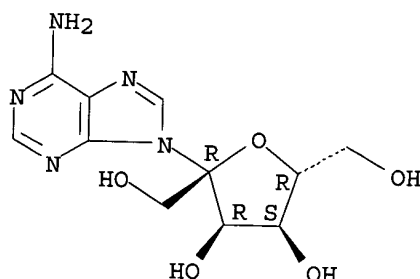
RL: BIOL (Biological study)

(xanthosine formation response to, in Escherichia coli)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 136 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1968:47125 CAPLUS

DN 68:47125

TI Psicofuranine

AU Hanka, Ladislav J.

CS Dep. of Microbiol., Upjohn Co., Kalamazoo, MI, USA

SO Antibiotics (USSR) (1967), 1, 457-63

CODEN: ATBTAR; ISSN: 0518-0066

DT Journal

LA English

AB A review. Considered are the effects of psicofuranine on bacteria, its inhibition of xanthosine-5'-phosphate aminase, and inhibition by guanine-contg. compds. of this inhibitory action. 28 references.

IT 1874-54-0

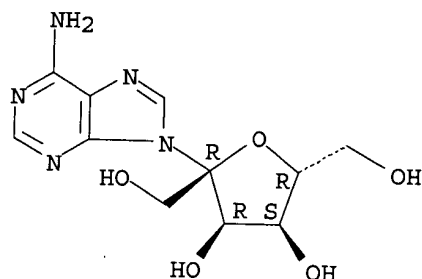
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(bactericidal action of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

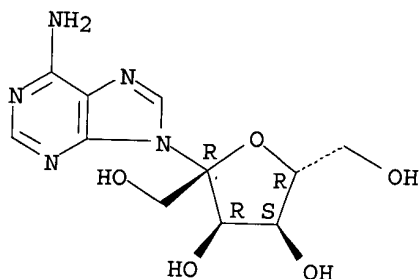
Absolute stereochemistry.

09567863



L3 ANSWER 137 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1968:47123 CAPLUS
DN 68:47123
TI Cordycepin, psicofuranine, decoyinine, tubercidin, and toyocamycin
AU Suhadolnik, Robert J.
CS Albert Einstein Med. Center, Philadelphia, PA, USA
SO Antibiotics (USSR) (1967), 2, 400-9, 448-9
CODEN: ATBTAR; ISSN: 0518-0066
DT Journal
LA English
AB A review of the structure and biosynthesis of these antibiotics. Recent studies with adenosine(I)-U-14C, the direct precursor, indicate that during the time of cordycepin (3'-deoxyadenosine) (II) biosynthesis DNA synthesis is stopped while RNA synthesis continues. I is also shown to be the direct precursor of 3'-amino-3'-deoxyadenosine (III) in *Helminthosporium*; II is not a precursor of III.
IT 1874-54-0
RL: FORM (Formation, nonpreparative)
(formation of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 138 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1967:470707 CAPLUS
DN 67:70707
TI Role of the 5'-hydroxyl group of adenosine in determining substrate specificity for adenosine deaminase
AU Bloch, Alexander; Robins, Morris J.; McCarthy, James R., Jr.
CS Roswell Park Mem. Inst., Buffalo, NY, USA
SO Journal of Medicinal Chemistry (1967), 10(5), 908-12
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
AB The relation between structural alterations in the carbohydrate moiety of

adenosine and the resulting changes in substrate activity was examd. with adenosine deaminase. Of the 43 analogs studied, 16 were deaminated, all of them at slower rates than the natural substrate. With the exception of adenosine 2'- or 3'-monophosphate, modifications at the 2' or 3' positions, including the simultaneous removal of the 2'-and 3'-hydroxyl groups or changes in their steric configuration, did not abolish substrate activity. Replacement of the bridge O with S allowed deamination, but modifications at the 1' position prevented it. Replacement or substitution of the 5'-hydroxyl group with a variety of other groups, or removal of the 4'-hydroxymethyl group, invariably led to loss of substrate activity. Very low activity was retained when an amino group replaced the 5'-hydroxyl group, or when, in the absence of the 5'-hydroxyl, an hydroxyl group was present at carbon 3' in configuration cis to the base moiety. These data show that the 2'- or 3'-hydroxyl groups of adenosine are not required for substrate activity, but that the 5'-hydroxyl group is essential for binding to the enzyme unless its function can be assumed to a very limited extent by an amino or possibly other hydrogen-bonding groups, or by an hydroxyl group at the 3' position cis to the base. The implication of these observations for the design of adenosine analogs of interest in chemotherapy is discussed.

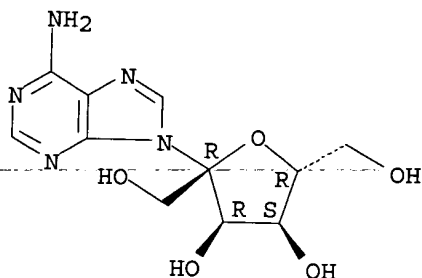
IT 1874-54-0

RL: BIOL (Biological study)
(as adenosine deaminase substrate)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- L3 ANSWER 139 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1967:454371 CAPLUS
 DN 67:54371
 TI Nucleic acid components and their analogs. XCIV. Synthesis of 6-amino-9-(1-deoxy-.beta.-D-psicofuranosyl)purine
 AU Farkas, Jiri; Sorm, Frantisek
 CS Ceskoslov. Akad. Ved, Prague, Czech.
 SO Collection of Czechoslovak Chemical Communications (1967), 32(7), 2663-7
 CODEN: CCCCAK; ISSN: 0010-0765
 DT Journal
 LA English
 AB cf. CA 67: 3216u. A soln. of 3.05 g. Me 1-bromo-1-deoxy-3,4,6-tri-O-p-toluoyl-D-psicofuranoside in 30 ml. CH₂Cl₂ was treated at 0.degree. with 15 ml. 30% HBr in AcOH, the mixt. kept 30 min. at 0.degree. and 10 min. at room temp., dild. with 50 ml. CH₂Cl₂, poured on ice, the org. layer washed at 0.degree. with H₂O and aq. NaHCO₃, evapd., and the residual sirupy 1-bromo-1-deoxy-3,4,6-tri-O-p-toluoyl-D-psicofuranosyl bromide treated with 2.36 g. 6-benzamidopurine chloromercuri salt in MeCN to give 1.15 g. 6-benzamido-9-(1-bromo-1-deoxy-3,4,6-tri-O-p-toluoyl-.beta.-D-psicofuranosyl)purine (I), m. 125-8.degree. (MeOH), [.alpha.]_D 20D -46.3.degree. (c 0.29, EtOAc). Redn. of 0.919 g. I in 50 ml. refluxing

09567863

C6H6 with 1.33 g. Bu3SnH under catalysis of 50 mg. 2,2.aprx.-azobis(isobutyronitrile) gave 56.2% 6-benzamido-9-(1-deoxy-3,4,6-tri-O-p-toluoyl-1-.beta.-D-psicofuranosyl)purine (II), m. 126-8.degree. (1:1 Pr2O-Et2O), [.alpha.]20D -69.5.degree. (c 0.49, EtOAc). Because of the instability of the free nucleoside in alkali as well as in acid media, the protecting groups were removed from II with 0.1M Ba(OMe)2 at 0.degree.. After 6 hrs., the mixt. was neutralized with CO2 gas, treated with NH3 in CHCl3, the ppt. removed by centrifugation, and the supernatant evapd. to give 58.2% 6-amino-9-(1-deoxy-.beta.-D-psicofuranosyl)purine, decomp. at 180.degree. without melting, [.alpha.]20D -82.3.degree. (c 0.20, HCONMe2).

IT

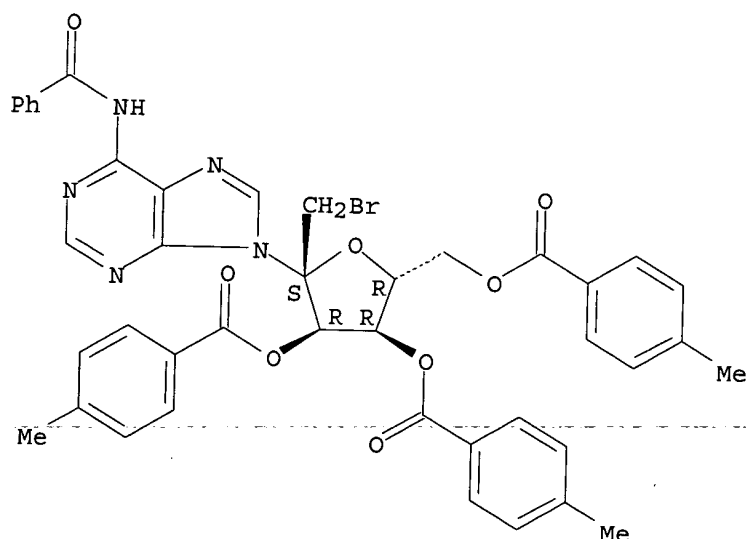
16848-10-5P 16848-11-6P 16848-12-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 16848-10-5 CAPLUS

CN Benzamide, N-[9-(1-bromo-1-deoxy-.beta.-D-psicofuranosyl)-9H-purin-6-yl]-, tri-p-toluate (ester) (8CI) (CA INDEX NAME)

Absolute stereochemistry.

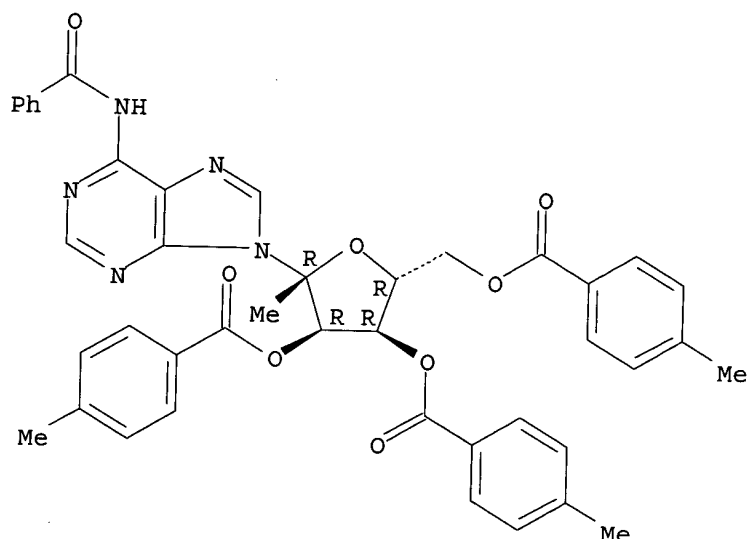


RN 16848-11-6 CAPLUS

CN Benzamide, N-[9-(1-deoxy-.beta.-D-psicofuranosyl)-9H-purin-6-yl]-, tri-p-toluate (ester) (8CI) (CA INDEX NAME)

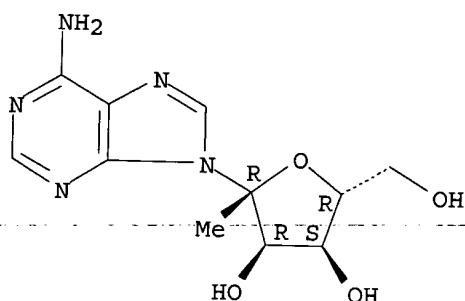
Absolute stereochemistry.

09567863



RN 16848-12-7 CAPLUS
CN Adenosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 140 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1967:35549 CAPLUS
DN 66:35549
TI The biosynthesis of the 6-deoxy-D-erythro-2,5-hexodiulose sugar of
decoyinine
AU Chassy, Bruce M.; Sugimori, Tsunetake; Suhadolnik, Robert J.
CS Albert Einstein Med. Center, Philadelphia, PA, USA
SO Biochimica et Biophysica Acta (1966), 130(1), 12-18
CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
AB 6-Deoxy-D-erythro-2,5-hexodiulose, the glucoside of the naturally
occurring nucleoside, decoyinine, arises directly from D-glucose-1-¹⁴C or
uniformly ¹⁴C-labeled D-fructose. Addnl. proof for the structure of this
hexodiulose was provided by the isolation of the C-6' of decoyinine as
CHI₃. Psicofuranine, labeled with ¹⁴C in the adenine and at C-6 of the
D-psicose, is directly converted to decoyinine by *Streptomyces*
hygroscopicus. The ratio of the ¹⁴C in the adenine to that in the
hexodiulose of decoyinine was the same as the ratio of the ¹⁴C in the
adenine to that in the psicose of the labeled psicofuranine added to the
growing cultures of *S. hygroscopicus*. In addn., all of the ¹⁴C in the
hexodiulose of decoyinine resided at C-6. Psicofuranine and decoyinine

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are interconverted. 16 references.

IT 1874-54-0

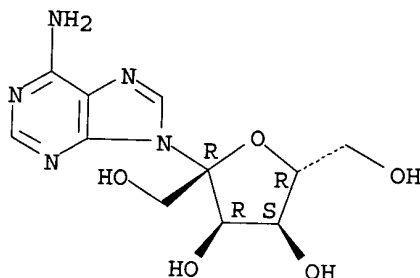
RL: BIOL (Biological study)

(decoyinine formation from, by *Streptomyces hygroscopicus*)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 141 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1967:1372 CAPLUS

DN 66:1372

TI Effect of antitumor antibiotics and antimetabolites on rat diaphragm carbohydrate metabolism

AU Gershbein, Leon L.

CS Biochem. Res. Labs., Northwest Inst. for Med. Res., Chicago, IL, USA

SO Journal of Pharmaceutical Sciences (1966), 55(11), 1303-5

CODEN: JPMSAE; ISSN: 0022-3549

DT Journal

LA English

AB Rat hemidiaphragms were incubated with antitumor antibiotics and antimetabolites in a phosphate-saline medium contg. 120 mg. % glucose and the changes in O uptake, hexose utilization, and glycogen turnover were detd. Aminopterin (0.40 mg.), triethylene-melamine (0.40 mg.), and 2-n-heptyl-4-hydroxyquinoline N-oxide (50 .gamma.) caused a decrease in glycogen content; the latter 2 as well as chlorambucil and 8-azaguanine, both screened down to 10 .gamma., depressed glucose utilization. Of the antibiotics, glycogenolysis occurred in the presence of tubercidin (0.50 mg.), antimycin D (0.75 mg.), streptonigrin (50 .gamma.), and antimycin A (0.25 mg., suspension). Muscle glucose uptake was depressed in the presence of more physiol. significant levels of puromycin, tubercidin, streptonigrin, duazomycins A and B, and actinogan and with antimycin A (0.25 mg.); tylosin was effective in this regard at 1.00 mg. Diaphragm Qo2 was depressed by 2-n-heptyl-4-hydroxyquinoline N-oxide (50 .gamma.), 8-azaadenine (0.25 mg.), and 0.50 mg. each of streptonigrin, E73 base, glutinosin, psicofuranine, and actinogan and was elevated by porfiromycin (0.50 mg.). 24 references.

IT 1874-54-0

RL: BIOL (Biological study)

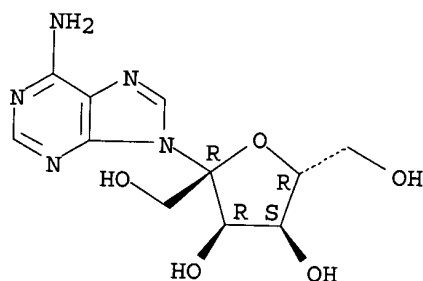
(respiration response to, in abdominal diaphragm)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

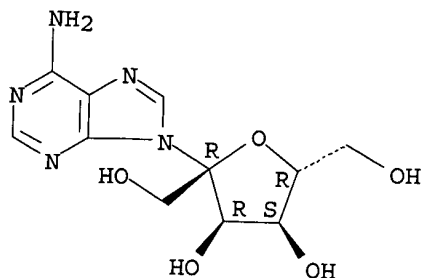
Absolute stereochemistry.

09567863



L3 ANSWER 142 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1966:483605 CAPLUS
DN 65:83605
OREF 65:15707g-h,15708a
TI Formation of an adenylyl-xanthosine monophosphate intermediate by xanthosine
5'-phosphate aminase and its inhibition by psicofuranine
AU Fukuyama, T. T.
CS Univ. of Southern California, School of Med., Los Angeles
SO J. Biol. Chem. (1966), 241(20), 4745-9
DT Journal
LA English
AB Amination of xanthosine 5'-phosphate (XMP) and its inhibition by
psicofuranine was examd. with substrate amts. of purified xanthosine
5'-phosphate aminase from Escherichia coli. In the absence of NH₃,
incubation of the enzyme with ATP-8-14C and XMP-8-14C for 10 min. results
in the conversion of ATP to AMP without concomitant formation of GMP.
Shorter periods of incubation permit the accumulation of an
electrophoretically distinct intermediate which contains radioactivity
derived equally from ATP-8-14C and XMP-8-14C. The formation of the
intermediate is accompanied by the formation of an equiv. amt. of inorg.
pyrophosphate. The intermediate is cleaved in the presence of NH₃ to
yield AMP and GMP or in the absence of NH₃ to AMP and XMP. Psicofuranine
does not inhibit the hydrolytic cleavage of the intermediate to AMP and
XMP. In contrast, the psicofuranine-inhibited aminase cannot catalyze the
aminolysis of the preformed intermediate to AMP and GMP, nor can it
condense ATP and XMP to form the intermediate despite its undiminished
ability to bind both of these substrates.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(guanylyl synthetase inhibition by)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 143 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1966:457046 CAPLUS

09567863

DN 65:57046
 OREF 65:10653a-d,10654a
 TI Ketosides of purines
 IN Schroeder, William
 PA Upjohn Co.
 SO 8 pp.
 DT Patent
 LA Unavailable
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1430854		19660311	FR	
PRAI	US		19590126		

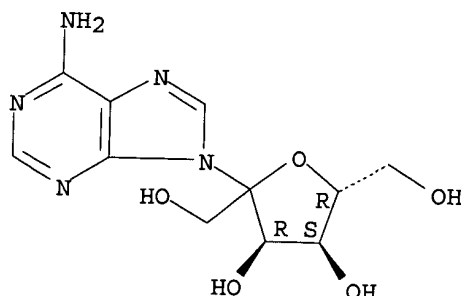
AB Nucleosides are prepd. by reaction of a halomericuric deriv. of a purine with a polyacyl ester of a 2-haloketose sugar in an inert solvent, followed by hydrolysis. E.g., a soln. of 3 g. of D-psicose in 15 ml. Ac2O and 15 ml. pyridine is allowed to stand 2 hrs. at 2.degree., and then for an addnl. 20 hrs. at ambient temp., poured into ice water, and extd. with CHCl3. The ext. washed with 3 150-ml. portions of N HCl, 150 ml. satd. NaHCO3, and then with water, is dried over anhyd. MgSO4 and evapd. in vacuo at 40.degree. to give 5.8 g. D-psicose pentaacetate as a yellow oil, which is dissolved in 115 ml. Et2O and satd. at 0.degree. with anhyd. HCl gas. After standing 42 hrs. at 2.degree. the ether and HCl are removed by distn. in vacuo at 20.degree.. The last traces of HCl are removed by washing with small quantities of CCl4 and C6H6, each portion being removed by distn. in vacuo to give tetra-O-acetyl-D-psicofuranosyl chloride as a yellow oil, which is dissolved in a small quantity of anhyd. xylene and added to a suspension of 4 g. of acetylchloromercuriadenine in 100 ml. xylene. The mixt. is refluxed 3 hrs. and filtered warm. The filtrate is evapd. in vacuo, the residue treated with 100 ml. MeOH satd. with NH3 at 0.degree., the mixt. allowed to stand at 0.degree. for 18 hrs. The mixt. is filtered and the filtrate evapd. in vacuo at 30.degree.. The solid brown residue is passed through 985 transfers in a countercurrent extn. machine using a BuOH-H2O system. The tubes contg. the max. (K = 0.3) are mixed and evapd. in vacuo. The residue is dissolved in 50% aq. acetone, treated with active charcoal, evapd. almost to dryness, and allowed to stand overnight. The cryst. product is sepd. on a porous tile and recrystd. from 50% aq. acetone to give 6-amino-9-D-psicofuranosylpurine (I), m. 190-5.degree., [.alpha.]24D -55.degree.. The title compds. have therapeutic activity, esp. I, which is active as an antibiotic and an antitumor agent. The title compds. and their derivs. are also useful in the study of metabolic processes within cells.

IT 13019-86-8, Adenine, 9-D-psicofuranosyl-
 (prepn. of)

RN 13019-86-8 CAPLUS

CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



09567863

L3 ANSWER 144 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1966:432175 CAPLUS

DN 65:32175

OREF 65:6001d-g

TI Biological activities of 3-isoadenosine

AU Gerzon, Koert; Johnson, Irving S.; Boder, George B.; Cline, John C.; Simpson, Patrick J.; Speth, Carla; Leonard, Nelson J.; Laursen, Richard A. Lilly Res. Labs., Eli Lilly & Co., Indianapolis, IN

SO Biochim. Biophys. Acta (1966), 119(3), 445-61

DT Journal

LA English

AB An isomer of adenosine, 3-.beta.-D-ribofuranosyladenine (3-isoadenosine), has been studied in a no. of bacterial and mammalian cell systems. While 3-isoadenosine readily supported the growth of the adenine-requiring Escherichia coli B97, it failed to support the growth in tissue culture of a murine cell line rendered dependent on an exogenous purine source by the folic acid antagonist amethopterin. 3-Isoadenosine inhibited the growth of various mammalian cell lines in Eagle's medium at levels of 10-4 to 10-6M and it displayed a cytotoxicity for the lymphoblastic leukemia cell line L6178Y of the same order as that of 6-azauridine. When tested by an agar overlay method, 3-isoadenosine also inhibited the growth of Adeno III virus in tissue culture. In order to investigate the inhibitory activity of 3-isoadenosine, comparative expts. were carried out in the above systems with other nucleoside analogs (psicofuranine, pseudouridine, tricanthine, etc.), and an unsuccessful attempt was made to reverse this inhibition with nucleosides and other complex materials. A daily dose of 3 mg./kg, given intraperitoneally to mice for 10 days was well tolerated, but 6.0 mg./kg. was toxic. The final phase of the study was the evaluation of 3-isoadenosine in tumor-bearing and virus-infected animals. The interpretation of the observed biol. activity in terms of the underlying biochem. mechanisms has been attempted by comparison of the activities of 3-isoadenosine and of related nucleosides and other agents. This comparison revealed a striking similarity in the characteristics of inhibition of mammalian cells in tissue culture by 3-isoadenosine and by 7-deazaadenosine. 59 references.

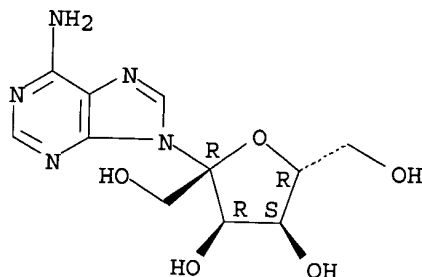
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-

(cytotoxicity of, 3-isoadenosine action in relation to)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 145 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1966:77172 CAPLUS

DN 64:77172

OREF 64:14507h,14508a-b

TI A separate antibiotic-binding site in xanthosine-5'-phosphate aminase. Differential alteration of catalytic properties and sensitivity to

09567863

inhibition

AU Kuramitsu, Howard; Moyed, H. S.
CS Univ. of Southern California, School of Med., Los Angeles
SO J. Biol. Chem. (1966), 241(7), 1596-60
DT Journal
LA English

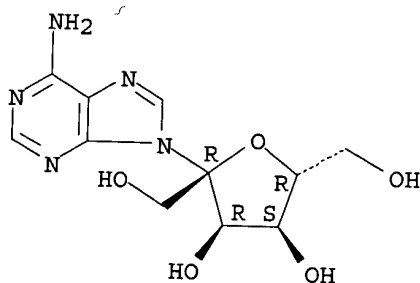
AB The sensitivity of xanthosine-5'-phosphate aminase to the inhibitory effect of the antibiotic, psicofuranine (I), can be reduced by exposure to several kinds of agents capable of modifying protein structure. These include urea and ethylene glycol, reducing agents such as 2-mercaptoethanol, the chelators, EDTA, and o-phenanthroline, and photooxidn. with methylene blue. Urea, in causing a 3-fold redn. in the capacity of the aminase to bind I and a similar redn. in sensitivity to inhibition by the antibiotic, also affects other properties of the aminase; the affinity consts. for Mg^{2+} , NH_3 , ATP, and xanthosine 5'-phosphate are increased while the activity of the aminase is greatly reduced. 2-Mercaptoethanol reduces the sensitivity of the aminase to inhibition by I, but reduces neither its activity nor its ability to bind I. In contrast, photooxidn. with methylene blue desensitizes by selectively reducing the ability of the aminase to bind I; the substrate-binding capacities of the aminase are not affected by the photooxidn. I increases the availability of SH groups of the aminase for reaction with SH reagents. This indication of a change in the tertiary structure of the aminase together with the addnl. evidence that the aminase contains a sep. binding site for I suggests that, although the antibiotic is probably bound at a nonessential part of the enzyme, it nevertheless may act by distorting the active center.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(guanylic synthetase inhibition by, effect of protein
structure-modifying agents on)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 146 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1966:22322 CAPLUS

DN 64:22322

OREF 64:4142a-d

TI Problems in the laboratory evaluation of new antibiotics [novobiocin, psicofuranine, and spectinomycin]

AU Savage, G. M.

CS Upjohn Co., Kalamazoo, MI

SO Intern. Congr. Chemotherapy, Proc., 3rd, Stuttgart (1964), 1963(1), 276-83

DT Journal

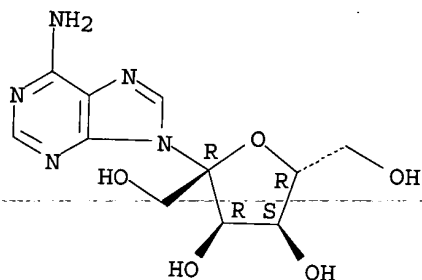
LA English

AB Old and new data are interpreted for the title compds., (I), (II), and (III), resp. I was initially named streptonivicin. The antibiotic effectiveness of I in the human or animal body (examples given) is

considerably affected by its formation of complexes with protein (IV). However, in tests on 24 patients with Pneumococcus pneumonia, I was very nearly as active as penicillin in 48 and oxytetracycline in 66 other patients. The chem. and phys. aspects of IV-binding by I (and other antibiotics) are discussed. The early active I preps. were amorphous. When cryst. I was tested in mice, it was inactive against infections but when both Na and Ca salts or cryst. I were tested they were as active orally as the original amorphous I. Cryst. II (initially isolated as a by-product of decoyinine production) was inactive against bacteria in vitro, but orally or subcutaneously in mice it was as active against 10 identified bacterial species as either chloramphenicol or novobiocin. Large doses of II, orally or intravenously, in monkeys, chickens, rats, and dogs over 24-43 days showed only limited toxicity but much smaller doses in human cancer patients induced pericarditis, pleuritis, or peritonitis in 10 of 12 patients in 3-15 days of II administration. The results of tests of III against a wide range of bacteria in vitro were greatly affected by the chem. compn. of the culture medium. New tests with III showed no detectable action against *Proteus mirabilis* on nutrient agar, but excellent inhibitory activity on a synthetic agar medium. 16 references.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(antibiotic activity and toxicity of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 147 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1965:503009 CAPLUS
DN 63:103009
OREF 63:18998f-h, 18999a-b
TI Decoyinines
IN Boer, Clarence De; Dietz, Alma; Johnson, Le Roy E.; Eble, Thomas E.;
Hoeksema, Herman
PA Upjohn Co.
SO 11 pp.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3207750		19650921	US	19640529
	NL 6506772			NL	

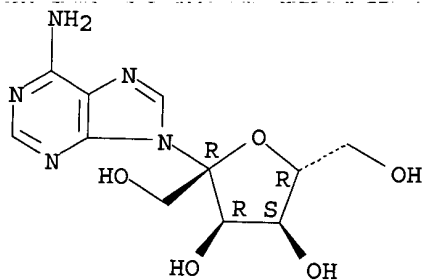
GI For diagram(s), see printed CA Issue.

AB Submerged aerobic fermentation of *Streptomyces hygroscopicus* var *decoyicus* produced decoyinine (antibiotic a14), I, R = H, and derivs. having the general formula I, where R is H or Ac, derivs. in which the CH₂ group was converted to Me (dihydrodecoyinine, II), and anhydrodihydrodecoyinine (II with 1,2-unsatn.). Thus, *S. hygroscopicus* var *decoyicus* NRRL 2666 was

cultured at 28.degree. on agar slants contg. (g.) maltose 10, tryptone 5, K₂HPO₄ 0.5, NaCl 0.5, hydrated FeSO₄ trace, agar 15, and H₂O to 1 l. Incubation was for 7 days. The spores were used to inoculate 100 ml. of medium contg. (g.) glucose 25, soy peptone 10, corn steep liquor 3, yeast ext. 3, N-Z amine A 2, (NH₄)₂SO₄ 3, MgSO₄ 0.2, NaCl 0.1, hydrated FeSO₄ 0.02, hydrated MnSO₄ 0.003, hydrated ZnSO₄ 0.004, KH₂PO₄ 1.9, K₂HPO₄ 1.1, pH adjusted to 7.2, and H₂O to 1 l. Incubation was for 72 hrs. at 28.degree. on a rotary shaker at 250 rpm. The culture was used to inoculate medium contg. (g.) Kay-soy 30, (NH₄)₂SO₄ 5, glycerol 40, cerelose 20, CaSO₃ 4, pH adjusted to 7.2, and H₂O to 1 l. Incubation was in 100 ml. lots for 5 days at 30.degree. on a rotary shaker at 250 rpm. An aliquot was fractionated by paper chromatography. The zone of I was located by bioautography with *Mycobacterium phlei*. Zones of psicofuranine and adenine were located by a Cary spectrophotometer by their absorption at 262 m.mu.. The relative mobilities (R_f) of the fractions in the solvent system (BuOH 81%-piperidine 2%-H₂O 17%) were: I 0.37, psicofuranine 0.13, and adenine 0.25. For the prepn. of I triacetate, 2.5 g. I, obtained by fractionation with the Craig countercurrent distribution with the 1:1 BuOH-H₂O solvent system and dissolved in 20 ml. of pyridine at 4.degree., was added to 8 ml. Ac₂O. The mixt. was stored overnight at room temp. On addn. of 3 vols. of ice H₂O (1-3.degree.), crystn. occurred, yielding 1.65 g. I triacetate, m.p. 171-85.degree.. Recrystn. from 25 ml. EtOH yielded 1.05 g., m.p. 188-90.degree.; uv max. at 258 m.mu., ϵ = 56, in alc. 0.01N H₂SO₄. The uv and ir absorption spectra of I and the cultural characteristics of the organism are given. Phys. and chem. properties, as well as the therapeutic efficiency in exptl. infected mice, of I are given.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(manuf. of, by fermentation of *Streptomyces hydroscopicus decoyicus*)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

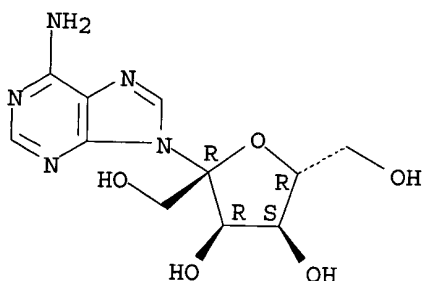


L3 ANSWER 148 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1965:455973 CAPLUS
DN 63:55973
OREF 63:10252e-g
TI Structural requirements of nucleosides for binding by adenosine deaminase
AU Gory, Joseph G.; Suhadolnik, R. J.
CS Albert Einstein Med. Center, Philadelphia, PA
SO Biochemistry (1965), 4(9), 1729-32
DT Journal
LA English
AB cf. following abstr. The substrate specificity of adenosine deaminase has been studied in detail. It has been observed that a significant difference exists between the binding of those compds. altered in the 6 or 9 position of adenine. Substitutions in the 6 position (N6-Me, -H, or -mercapto) of adenosine result in compds. that are competitive inhibitors.

Substitution of a Cl atom for the amino group in the 6 position (6-chloropurine ribonucleoside) results in a nucleoside that is, in fact, a substrate for adenosine deaminase. Changes in the 9 substituent of adenine results in compds. that are either substrates (e.g., adenosine, 2'-deoxyadenosine, 3'-deoxyadenosine, 3'-amino-3'-deoxyadenosine, xylofuranosyladenine, and arabinofuranosyladenine) or inhibitors (e.g., 9-hexyladenine, 9-pentyladenine, 9-cyclopentanoladenine, and 9-cyclohexanoladenine). Seven of the 9 position substituent analogs studied were not bound by the enzyme (adenine, psicofuranine, fructofuranosyladenine, 2'-adenylic acid, 3'-adenylic acid, 5'-deoxyadenylic acid, and 9-cyclohexyladenine). Based on these observations, it is concluded that the binding site of adenosine deaminase is more specific for the substituent on position 9 than for the substituent on position 6 of adenine.

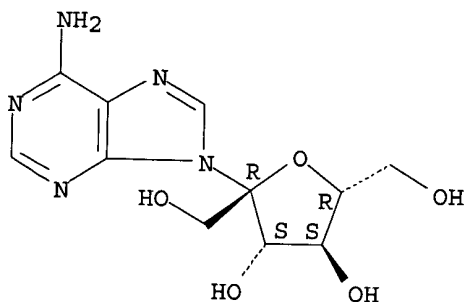
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- 95403-90-0
 , Adenine, 9-.beta.-D-fructofuranosyl-
 (reaction with adenosine deaminase, structural requirements for)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 95403-90-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-fructofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 149 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1965:434442 CAPLUS
 DN 63:34442
 OREF 63:6181f-g
 TI Biological half-life of psicofuranine in the human
 AU Forist, Arlington A.
 CS Upjohn Co., Kalamazoo, MI
 SO J. Pharm. Sci. (1965), 54(6), 927
 DT Journal

09567863

LA English

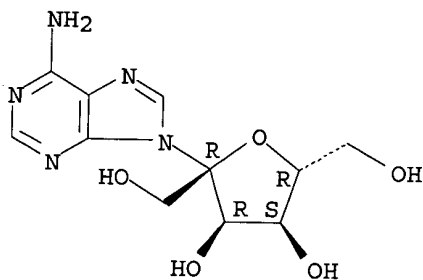
AB Av. serum levels of psicofuranine in 6 human subjects at intervals of 1, 2, 4, 6, and 8 hrs. following oral administration of the tetraacetate were detd., plotted logarithmically and a half-life of 45 min. obtained for the appearance and of 140 min. for the disappearance obtained. Since the half-life in dogs is 115 min. for the disappearance, the marked species difference between dogs and humans is not reflected in the biol. half-life.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(metabolism of, detn. of biol. half-life in man)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



09567863

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L3 ANSWER 1 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2002:768804 CAPLUS
DN 138:4777
TI A Highly Stereoselective Samarium Diiodide-Promoted Aldol Reaction with
1'-Phenylseleno-2'-keto Nucleosides. Synthesis of 1'.alpha.-Branched
Uridine Derivatives
AU Kodama, Tetsuya; Shuto, Satoshi; Ichikawa, Satoshi; Matsuda, Akira
CS Graduate School of Pharmaceutical Sciences, Hokkaido University, Sapporo,
060-0812, Japan
SO Journal of Organic Chemistry (2002), 67(22), 7706-7715
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 138:4777
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

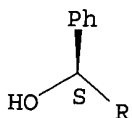
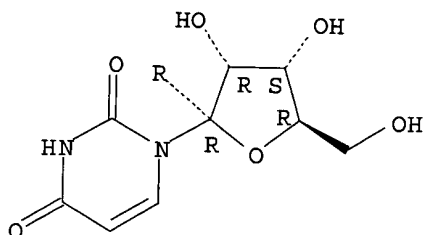
AB Since 1'-branched nucleosides are biol. important targets in medicinal
chem., more efficient methods for prepg. them are required. The
1'.alpha.-branched uridine derivs. were successfully synthesized via a
samarium diiodide (SmI2)-promoted aldol reaction. Treatment of the
1'.alpha.-phenylseleno-2'-ketouridine deriv., readily prepd. from uridine,
with SmI2 at -78 .degree.C in THF reductively cleaved the anomeric Se-C
bond to generate the corresponding samarium enolate, which was highly
stereoselectively condensed with aldehydes, such as PhCHO, MeCHO, i-PrCHO,
or (CH2O)n, to give the corresponding 1'.alpha.-1''S-branched products,
e.g. I (BOM = N-3-benzyloxymethyl, R = OH, R1 = Ph). This is the first
time an enolate has been generated by reductively cleaving a C-Se bond.
The highly selective stereochem. results suggest that the aldol reaction
proceeds via a chelation-controlled transition state. When an excess of
aldehyde was used and the reaction mixt. was gradually warmed, the tandem
aldol-Tishchenko reaction proceeded to give the "arabino-type"
nucleosides, e.g. II, having a 2'-"up" hydroxyl and 1'.alpha.-1''S-
branched chain. 1'.alpha.-Hydroxymethyluridine, which is the uracil
version of the antitumor antibiotic angustmycin C, was synthesized from
the aldol reaction product I (BOM = N-3-benzyloxymethyl, R = H, R1 = OH).

IT 476490-60-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(stereoselective samarium diiodide-promoted aldol reaction with
phenylselenoketo nucleosides in synthesis of 1'.alpha.-branched uridine
derivs.)

RN 476490-60-5 CAPLUS
CN Uridine, 1'-C-[(S)-hydroxyphenylmethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



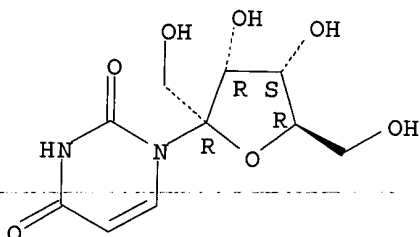
IT 53263-33-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(stereoselective samarium diiodide-promoted aldol reaction with
phenylselenoketo nucleosides in synthesis of 1'.alpha.-branched uridine
derivs.)

RN 53263-33-5 CAPLUS

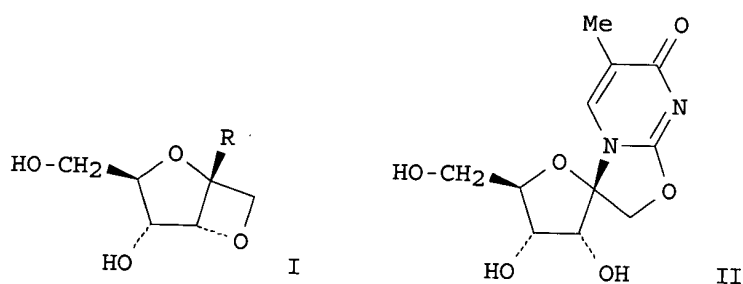
CN Uridine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2002:641005 CAPLUS
DN 138:39492
TI Synthesis of anhydro psicofuranosyl nucleosides
AU Roivainen, Jarkko; Vepsalainen, Jouko; Azhayev, Alex; Mikhailopulo, Igor
A.
CS Department of Pharmaceutical Chemistry, University of Kuopio, Kuopio,
FIN-70211, Finland
SO Tetrahedron Letters (2002), 43(37), 6553-6555
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 138:39492
GI



AB Novel rigid nucleosides I (R = Adenine or Thymine) and II were synthesized using chiral synthon Me 1-O-mesyl-5-O-toluoyl-.beta.-D-psicofuranoside, prepd. from known 1,3:4,5-di-O-isopropylidene-.beta.-D-psicofuranose in four steps. The key step involves coupling of persilylated nucleobases to the anhydrofuranoside. Using this method, 1',4'- and O2,1-anhydro-.beta.-D-psicofuranosyl thymine nucleosides were also obtained.

IT 478487-96-6P

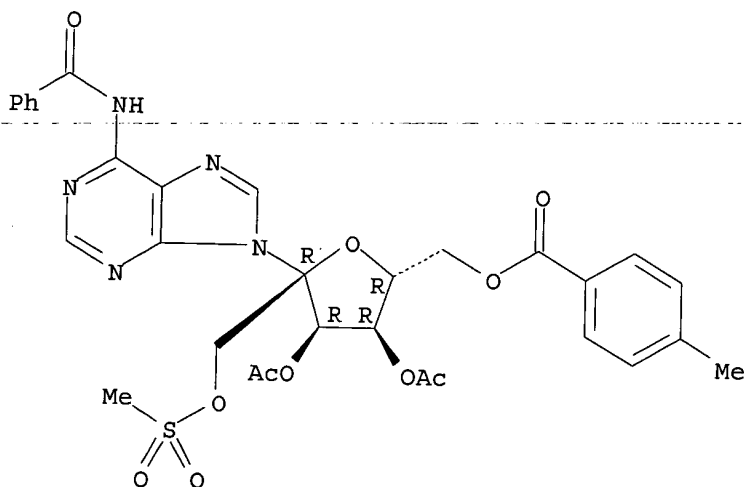
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of anhydro psicofuranosyl nucleoside analogs using diisopropylidene-.beta.-D-psicofuranose as chiral synthon)

RN 478487-96-6 CAPLUS

CN Adenosine, N-benzoyl-1'-C-[[[(methylsulfonyl)oxy]methyl]-, 2',3'-diacetate 5'-(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 2002:574962 CAPLUS

DN 137:135066

TI Drugs for the diagnosis of tissue-reproductive activity or the treatment of proliferative diseases

IN Toyohara, Jun; Hayashi, Akio

PA Nihon Medi-Physics Co., Ltd., Japan

SO PCT Int. Appl., 66 pp.

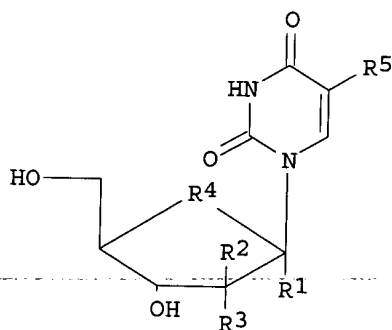
CODEN: PIXXD2

DT Patent

09567863

LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002058740	A1	20020801	WO 2002-JP408	20020122
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1270017	A1	20030102	EP 2002-716326	20020122
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	NO 2002004324	A	20021107	NO 2002-4324	20020910
PRAI	JP 2001-14954	A	20010123		
	WO 2002-JP408	W	20020122		
OS	MARPAT 137:135066				
GI					



I

AB Drugs contg. as the active ingredient radioactively labeled compds. of the following general formula or pharmaceutically acceptable salts thereof: [I; wherein R1 is hydrogen or linear or branched C1-8 alkyl; R2 is hydrogen, hydroxyl, or halogeno; R3 is hydrogen or fluoro; R4 is oxygen, sulfur, or methylene; and R5 is radioactive halogeno]. The drugs are stable in the living body, and stay in the cell or are integrated into DNA, thus being useful in the diagnosis of tissue-reproductive activity or the treatment of proliferative diseases.

IT 444586-98-5P

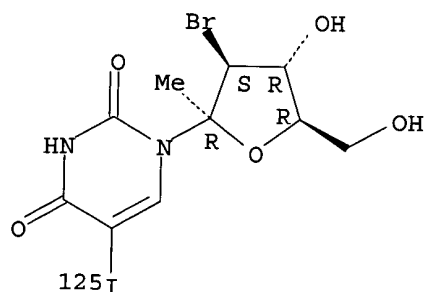
RL: DGN (Diagnostic use); PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drugs for diagnosis of tissue-reproductive activity or treatment of proliferative diseases)

RN 444586-98-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-bromo-1,3-dideoxy-.beta.-D-fructofuranosyl)-5-(iodo-125I)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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IT 162143-55-7P 444586-94-1P 444586-95-2P

444586-96-3P 444586-97-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(drugs for diagnosis of tissue-reproductive activity or treatment of proliferative diseases)

RN 162143-55-7 CAPLUS

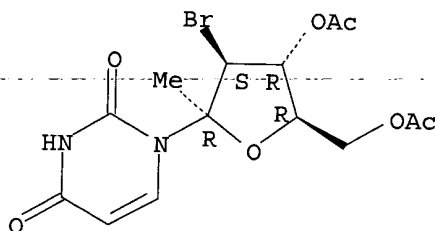
CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-1,3-dideoxy-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 444586-94-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(4,6-di-O-acetyl-3-bromo-1,3-dideoxy-.beta.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

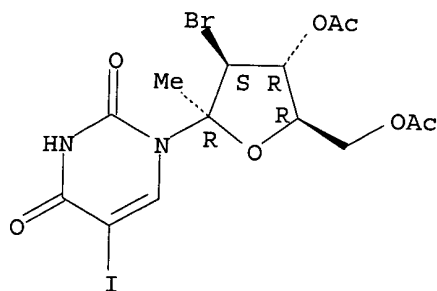
Absolute stereochemistry.



RN 444586-95-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(4,6-di-O-acetyl-3-bromo-1,3-dideoxy-.beta.-D-fructofuranosyl)-5-iodo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

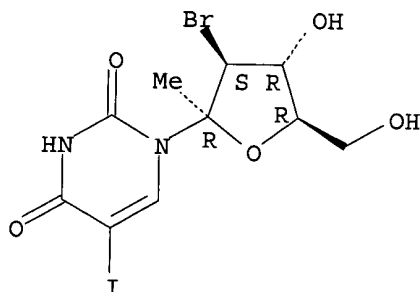


RN 444586-96-3 CAPLUS

09567863

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-bromo-1,3-dideoxy-.beta.-D-fructofuranosyl)-5-iodo- (9CI) (CA INDEX NAME)

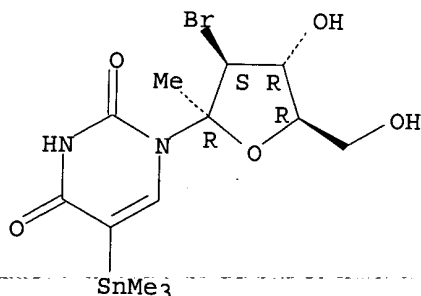
Absolute stereochemistry.



RN 444586-97-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-bromo-1,3-dideoxy-.beta.-D-fructofuranosyl)-5-(trimethylstannyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 4 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2002:558420 CAPLUS
DN 137:232848
TI Nucleophilic Addition of Benzenethiol to 1',2'-Unsaturated Nucleosides:
1'-C-Phenylthio-2'-deoxynucleosides as Anomeric Radical Precursors
AU Kumamoto, Hiroki; Murasaki, Miki; Haraguchi, Kazuhiro; Anamura, Aki;
Tanaka, Hiromichi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, 142-8555,
Japan
SO Journal of Organic Chemistry (2002), 67(17), 6124-6130
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 137:232848
AB The addn. reaction of benzenethiol to the glycal portion of 1',2'-unsatd.
uridine proceeds efficiently in the presence of Et3N. The mechanism
involves nucleophilic attack of thiolate at the anomeric position in the
rate-detg. step, wherein conjugation between the nucleobase and the glycal
portion is crucial. The deriv. having a Me group either at the 2'- or
6-position did not undergo this addn. reaction, due to their sterically
prohibited coplanarity. The 1',2'-unsatd. derivs. of thymine and adenine

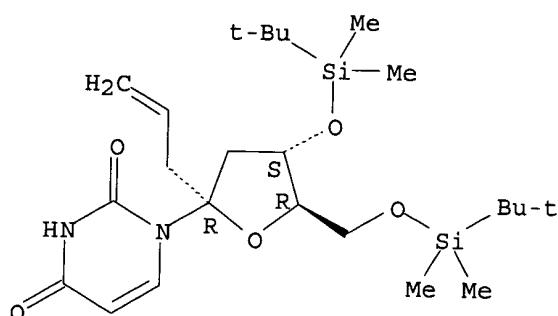
can also be used as substrates for this addn. reaction. It was also shown that the resulting 1'-C-phenylthio-2'-deoxynucleosides serve as precursors for radical-mediated C-C bond formation at the anomeric position.

IT 459156-27-5P 459156-28-6P 459156-29-7P
459156-30-0P 459156-31-1P 459156-32-2P
459156-33-3P 459156-34-4P 459156-35-5P
459156-36-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(nucleophilic addn. of benzenethiol to 1',2'-unsatd. nucleosides using 1'-C-phenylthio-2'-deoxynucleosides as anomeric radical precursors)

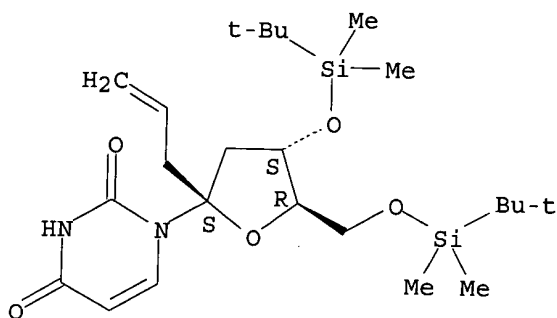
RN 459156-27-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,4S,5R)-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(2-propenyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 459156-28-6 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,4S,5R)-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(2-propenyl)-2-furanyl]- (9CI) (CA INDEX NAME)

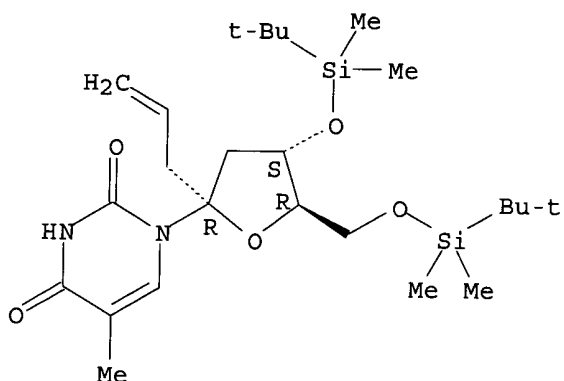
Absolute stereochemistry.



RN 459156-29-7 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,4S,5R)-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(2-propenyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

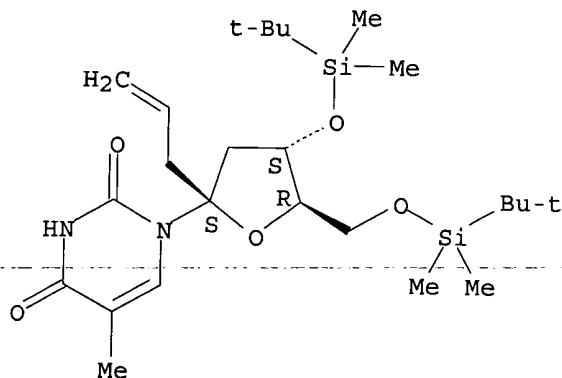
09567863



RN 459156-30-0 CAPLUS

CN 2,4 (1H,3H)-Pyrimidinedione, 1-[(2S,4S,5R)-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(2-propenyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

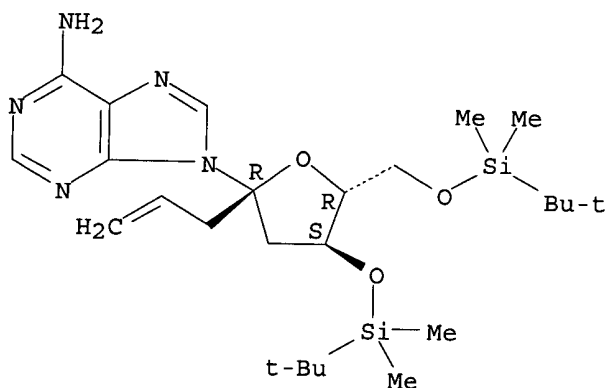
Absolute stereochemistry.



RN 459156-31-1 CAPLUS

CN 9H-Purin-6-amine, 9-[(2R,4S,5R)-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(2-propenyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

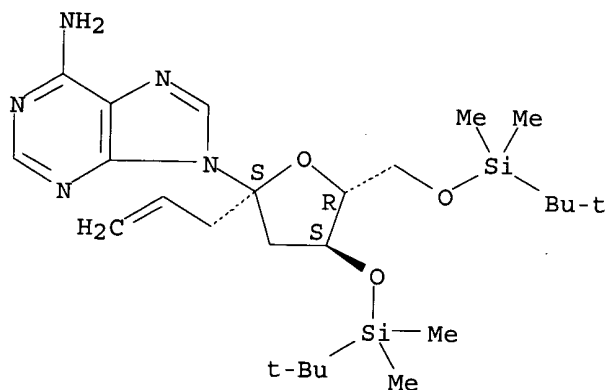


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RN 459156-32-2 CAPLUS

CN 9H-Purin-6-amine, 9-[(2S,4S,5R)-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(2-propenyl)-2-furanyl]- (9CI) (CA INDEX NAME)

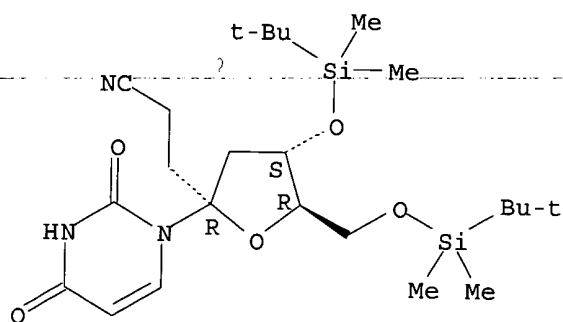
Absolute stereochemistry.



RN 459156-33-3 CAPLUS

CN 2-Furanpropanenitrile, 2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-, (2R,4S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

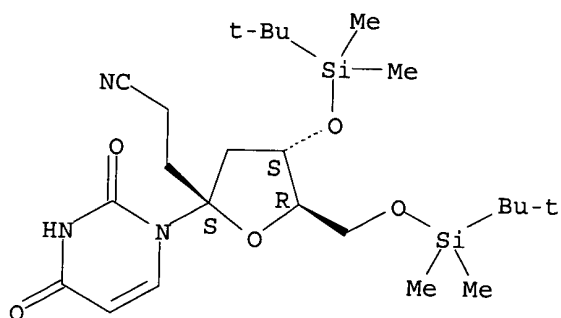


RN 459156-34-4 CAPLUS

CN 2-Furanpropanenitrile, 2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-, (2S,4S,5R)- (9CI) (CA INDEX NAME)

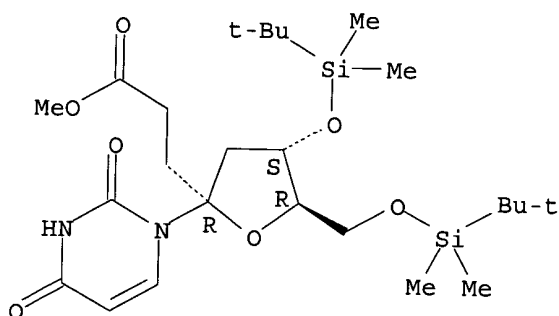
Absolute stereochemistry.

09567863



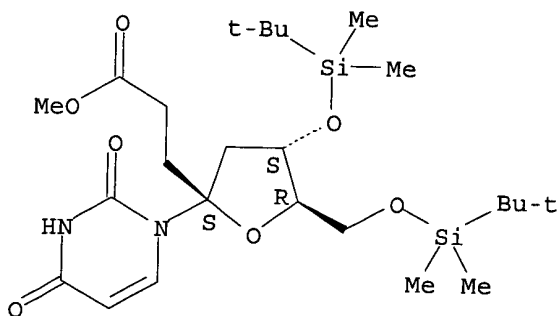
RN 459156-35-5 CAPLUS
CN 2-Furanpropanoic acid, 2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4-
[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-
dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-, methyl ester,
(2R,4S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 459156-36-6 CAPLUS
CN 2-Furanpropanoic acid, 2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4-
[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-
dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-, methyl ester,
(2S,4S,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



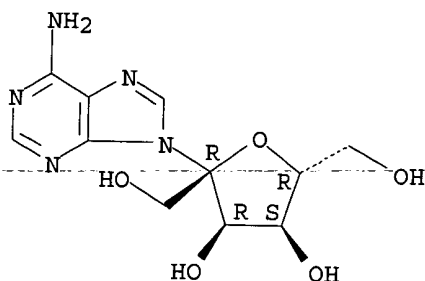
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 201 CAPLUS COPYRIGHT 2003 ACS

09567863

AN 2002:543624 CAPLUS
 DN 137:353254
 TI Stereoselective entry to 1'-C-branched 4'-thionucleosides from
 4-thiofuranoid glycal: synthesis of 4'-thioangustmycin C
 AU Haraguchi, Kazuhiro; Takahashi, Haruhiko; Tanaka, Hiromichi
 CS School of Pharmaceutical Sciences, Showa University, Shinagawa-ku, Tokyo,
 142-8555, Japan
 SO Tetrahedron Letters (2002), 43(32), 5657-5660
 CODEN: TELEAY; ISSN: 0040-4039
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB A stereoselective synthetic method for the synthesis of novel
 1'-C-carbon-substituted 4'-thionucleosides has been developed. The
 present method consists of the following steps: (1) prepn. of the
 1-C-carbon-substituted 4-thiofuranoid glycals based on lithiation, and (2)
 NIS- or PhSeCl-initiated stereoselective glycosidation to these
 1-substituted glycals. This synthetic sequence enabled us to synthesize
 the 4'-thio analog of antitumor antibiotic angustmycin C.
 IT 1874-54-0P, Angustmycin C
 RL: PNU (Preparation, unclassified); PREP (Preparation)
 (stereoselective prepn. of 1'-C-branched 4'-thionucleosides from
 4-thiofuranoid glycal via stereoselective glycosylation as a key step)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



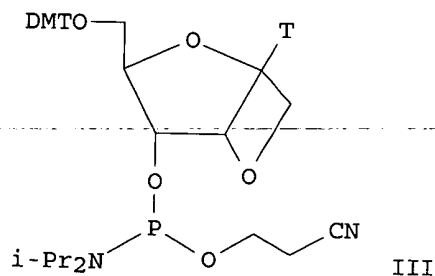
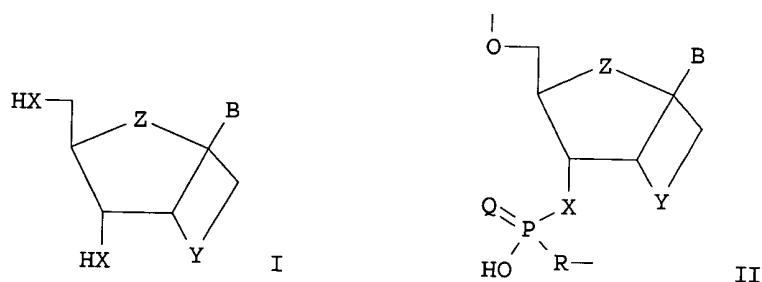
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:368486 CAPLUS
 DN 136:355426
 TI Preparation of modified nucleosides and nucleotides and use thereof
 IN Chattopadhyaya, Jyoti
 PA Swed.
 SO PCT Int. Appl., 33 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038578	A1	20020516	WO 2001-SE2484	20011109
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,				

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SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
 BY, KG, KZ, MD
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 AU 2002014477 A5 20020521 AU 2002-14477 20011109
 PRAI US 2000-247399P P 20001109
 US 2001-308063P P 20010725
 WO 2001-SE2484 W 20011109
 OS MARPAT 136:355426
 GI



AB The present invention relates to the prepn. of modified nucleotides and nucleosides I and II wherein Q = O, S; X = O, S, NH, NCH₃, CH₂, CHMe, Y = O, S, NH, NCH₃, CH₂, CHMe; Z = O, S, NH, NCH₃, CH₂, CHMe; R = O, S, NH, NCH₃, CH₂, CHMe; B = A, C, G, T; 5-F/Cl/BrU, 6-thioguanine, 7-deazaguanine; .alpha.- or .beta.-D-(or L)ribo, xylo, arabino or lyxo configuration. The modified nucleotides and nucleotides are assembled to larger oligonucleotides and oligonucleosides, which, for example, may be used for diagnostics of polymorphisms and for antisense therapy of various conditions (no data). The oligonucleotides and oligonucleosides described in the invention have very good endonuclease resistance without compromising the RNA cleavage properties of RNase H. Thus, nucleoside phosphoramidite III was prepd. and incorporated into oligonucleosides useful as endonuclease resistance without compromising the RNA cleavage properties of RNase H.

IT 344906-03-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and endonuclease resistance of modified oligonucleosides)

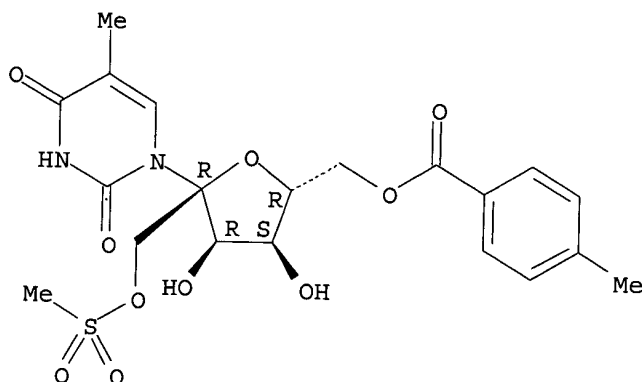
RN 344906-03-2 CAPLUS

CN Uridine, 5-methyl-1'-C-[[[(methylsulfonyl)oxy]methyl]-,

09567863

5'-(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



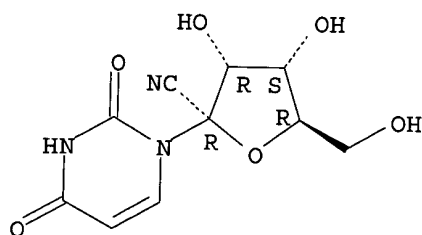
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2002:286817 CAPLUS
DN 136:279652
TI Cyanoribofuranoside compound and its preparing process
IN Chen, Guorong; Xie, Yuyuan; Lou, Zhen; Ge, Luye
PA Huadong Science and Engineering Univ., Peop. Rep. China
SO Faming Zhuanli Shengqing Gongkai Shuomingshu, 10 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1298880	A	20010613		
PRAI	CN 2000-127905		20001214	CN 2000-127905	20001214
OS	CASREACT 136:279652				
AB	1'-Cyanouridine and 1'-cyanoadenosine are synthesized by refluxing 1-bromo-1-cyano-1-deoxy-2,3,5-tri-O-benzoyl-.beta.-D-ribofuranoside in solvent (such as nitromethane, acetonitrile, or dichloromethane) in the presence of mol. sieve for 0.5-1.5 h, substituting with 2,4-bis(trimethylsilyloxy)pyrimidine or 6-chloropurine (at a molar ratio of 1:2.4-3.0) in the presence of mercuric cyanide at 100-120.degree.C for 2-3 h, and hydrolyzing with NH ₄ OH or NaOH soln. in alc. The two compds. are used for treating leukemia.				
IT	153959-73-0P 406463-01-2P RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (cyanoribofuranosides prepn. for treatment of leukemia)				
RN	153959-73-0	CAPLUS			
CN	Uridine, 1'-C-cyano-	(9CI)	(CA INDEX NAME)		

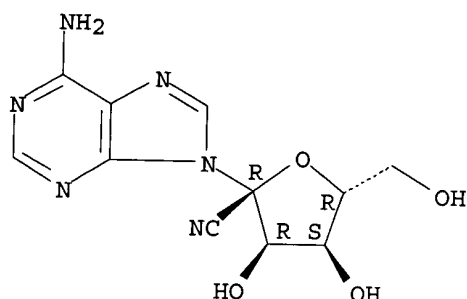
Absolute stereochemistry.

09567863



RN 406463-01-2 CAPLUS
CN Adenosine, 1'-C-cyano- (9CI) (CA INDEX NAME)

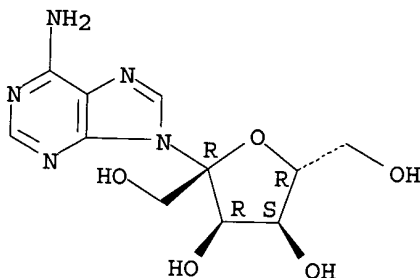
Absolute stereochemistry.



L3 ANSWER 8 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2002:156367 CAPLUS
DN 137:75886
TI Chemical constituents from the basidiocarp of *Sarcodon aspratum*
AU Huang, Yue; Dong, Zejun; Liu, Jikai
CS Kunming Institute of Botany, Chinese Academy of Sciences, Kunming, 650204, Peop. Rep. China
SO Yunnan Zhiwu Yanjiu (2002), 24(1), 125-128
CODEN: YCWCDP; ISSN: 0253-2700
PB Zhongguo Kexueyuan Kunming Zhiwu Yanjiuso
DT Journal
LA Chinese
AB Chem. constituents of the basidiocarp of *Sarcodon aspratus* were studied. Fifteen known compds., cerebroside B, psicofuranine, uridic triphosphate, uracil, adenine, 3.beta.-acteoxy-(22E,24R)-24-methyl-5.alpha.-cholest-7,22-diene-5,6.beta.-diol, (22E)-27-nor-24-methyl-5.alpha.-cholesta-7,22-diene-3.beta.,5,6.beta.-triol, 3.beta.-hydroxy-5.alpha.,8.alpha.-epidioxy-24.xi.-methylcholesta-6-en, (22 mg), 3.beta.-O-glucopyranosyl-5.alpha.,6.beta.-dihydroxyergosta-7,22-diene, (24S)-ergosta-4,6,8(14),22-tetraen-3-one, (22E,24R)-24-methylergosta-7,22-diene-3.beta.,5.alpha.,6.beta.-triol, (22E,24S)-24-methyl-5.alpha.-cholest-7,22-diene-3.beta.,5,6.beta.-triol, 3.beta.-hydroxy-5.alpha.,8.alpha.-epidioxyerosta-6,22-diene, 3.beta.-hydroxyergosta-5,7,22-triene (14) and D-allitol (15), were isolated from the fresh fruiting bodies of *Sarcodon aspratus* and identified by spectroscopy. This is the 1st report of the above compds. in this genus.
IT 1874-54-0P, Psicofuranine
RL: BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(chem. constituents of the basidiocarp of *Sarcodon aspratus*)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.



L3 ANSWER 9 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2002:129616 CAPLUS
DN 136:147786
TI Escherichia coli mutant strain having decoyinine resistance
IN Kim, Dong U.; Oh, Yun Seok; Lee, Gwang Ho; Lee, Jae Hwan; Lee, Jae Heung;
Han, Jong Gwon
PA Cheil Jedang Corporation, S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

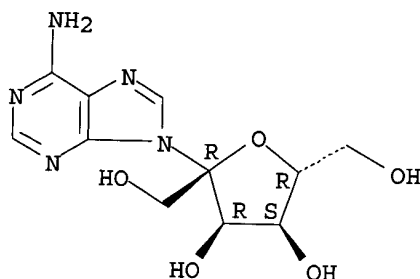
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	KR 2000040840	A	20000705		
PRAI	KR 1998-56576		19981216	KR 1998-56576	19981216

AB Decoyinine resistance of E. coli KD113 (KFCC-11067) producing more 5'-Guanosine monophosphate (GMP) from xanthosine monophosphate (XMP) is provided. The E. coli KD113 (KFCC-11067) has XMP aminase showing no inhibitory effect by high concn. of GMP and increment of specific enzyme activity. Wild type E. coli W3110 is cultivated in LB medium at 37 .degree.C for 16 h and cells are harvested by centrifugation. Cells treated with nitrosoguanidine and are then spread on minimal medium plates contg. 0-3.0 mg/mL of decoyinine, 0-3.0 mg/mL of psicofuranine or 0-3.0 mg/mL of mercaptopurine. Mutants were selected during incubation for 1-5 days at 37 .degree.C. Specific enzyme activity of XMP aminase of mutant KD113 is 3-7 times higher compared with the wild type. Cells were sonicated and the supernatant was used to prep. GMP from XMP. The enzyme from the decoyinine resistant mutant also produced more GMP compared with a psicofuranine resistant mutant.

IT 1874-54-0, Psicofuranine
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(improved guanosine monophosphate by a decoyinine resistant escherichia coli mutant)

RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

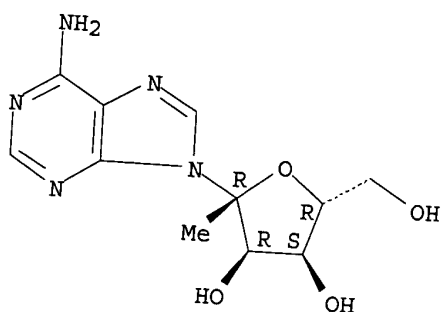
Absolute stereochemistry.



- L3 ANSWER 10 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 2002:114390 CAPLUS
 DN 136:279645
 TI Ribose-Modified Nucleosides as Ligands for Adenosine Receptors: Synthesis, Conformational Analysis, and Biological Evaluation of 1'-C-Methyl Adenosine Analogues
 AU Cappellacci, Loredana; Barboni, Grazia; Palmieri, Micaela; Pasqualini, Michela; Grifantini, Mario; Costa, Barbara; Martini, Claudia; Franchetti, Palmarisa
 CS Dipartimento di Scienze Chimiche, Universita di Camerino, Camerino, 62032, Italy
 SO Journal of Medicinal Chemistry (2002), 45(6), 1196-1202
 CODEN: JMCMAR; ISSN: 0022-2623
 PB American Chemical Society
 DT Journal
 LA English
 AB 1'-C-Me analogs of adenosine and selective adenosine A1 receptor agonists, such as N-[(1R)-1-methyl-2-phenylethyl]adenosine ((R)-PIA) and N6-cyclopentyladenosine, were synthesized to further investigate the domain that binds the ribose moiety. Binding affinities of these new compds. at A1 and A2A receptors in rat brain membranes and at A3 in rat testis membranes were detd. and compared. It was found that the 1'-C-Me modification in adenosine resulted in a decrease of affinity, particularly at A1 and A2A receptors. When this modification was combined with N6 substitutions with groups that induce high potency and selectivity at A1 receptors, the high affinity was in part restored and the selectivity was increased. The most potent compd. proved to be the 1'-C-Me analog of (R)-PIA with a K_i of 23 nM for the displacement of [3H]CHA binding from rat brain A1 receptors and a >435-fold selectivity over A2A receptors. In functional assays, these compds. inhibited forskolin-stimulated adenylate cyclase with IC_{50} values ranging from 0.065 to 3.4 μ M, acting as full agonists. Conformational anal. based on vicinal proton-proton J-coupling consts. and mol. mechanics calcns. using the MM2 force field proved that the Me group on C1' in adenosine has a pronounced impact on the furanose conformation by driving its conformational equil. toward the north, γ_{+} , syn form.
- IT 16848-12-7P 406479-41-2P 406479-42-3P
 406479-43-4P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (ribosemodified nucleosides as ligands for adenosine receptors
 synthesis conformational anal. and biol. evaluation of Me adenosine
 analogs)
- RN 16848-12-7 CAPLUS
 CN Adenosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

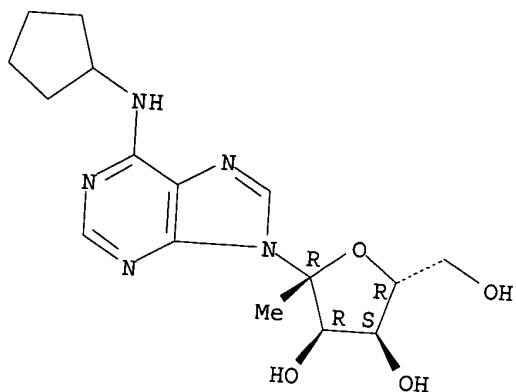
09567863



RN 406479-41-2 CAPLUS

CN Adenosine, N-cyclopentyl-1'-C-methyl- (9CI) (CA INDEX NAME)

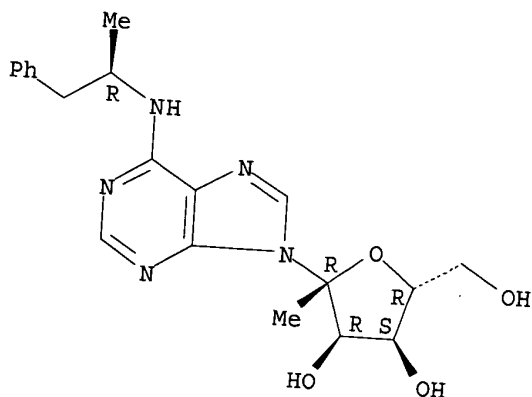
Absolute stereochemistry.



RN 406479-42-3 CAPLUS

CN Adenosine, 1'-C-methyl-N-[(1R)-1-methyl-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

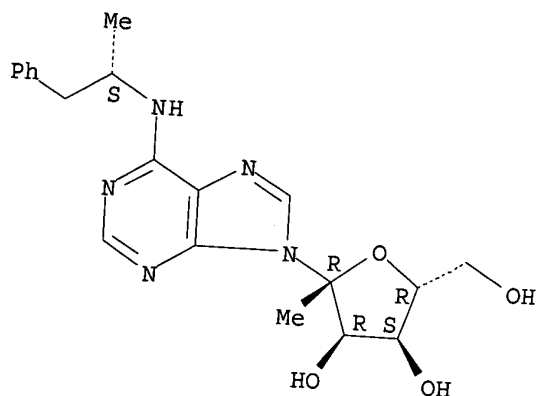


RN 406479-43-4 CAPLUS

CN Adenosine, 1'-C-methyl-N-[(1S)-1-methyl-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2001:886155 CAPLUS
DN 136:590
TI Methods and compositions using modified nucleosides for treating
flaviviruses and pestiviruses
IN Sommadossi, Jean-Pierre; Lacolla, Paolo
PA Novirio Pharmaceuticals Limited, Cayman I.; Universita Degli Studi Di
Cagliari
SO PCT Int. Appl., 302 pp.
CODEN: PIXXD2

DT Patent
LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001092282	A2	20011206	WO 2001-US16687	20010523
WO 2001092282	A3	20020502		
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1294735	A2	20030326	EP 2001-952131	20010523
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003060400	A1	20030327	US 2001-863816	20010523
NO 2002005600	A	20030117	NO 2002-5600	20021121
PRAI US 2000-207674P	P	20000526		
US 2001-283276P	P	20010411		
WO 2001-US16687	W	20010523		
MARPAT 136:590				

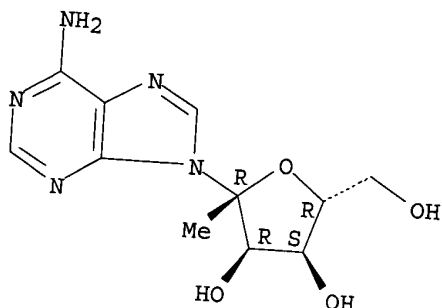
OS A method and compn. are provided for treating a host infected with
AB flavivirus or pestivirus, comprising administering an effective amt. of a
1', 2' or 3'-modified nucleoside or a pharmaceutically acceptable salt or
IT prodrug thereof.
16848-12-7

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological
activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleoside derivs. for treating flaviviruses and pestiviruses)

09567863

RN 16848-12-7 CAPLUS
CN Adenosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

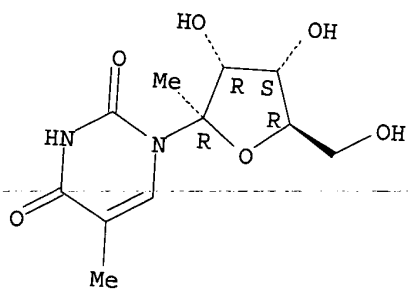


IT 34441-68-4 38946-83-7 38946-84-8
54401-19-3 374750-31-9

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

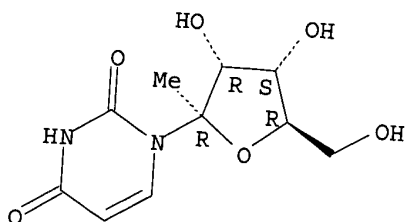
(nucleoside derivs. for treating flaviviruses and pestiviruses)
RN 34441-68-4 CAPLUS
CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 38946-83-7 CAPLUS
CN Uridine, 1'-C-methyl- (9CI) (CA INDEX NAME)

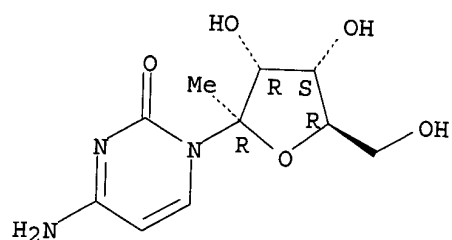
Absolute stereochemistry.



RN 38946-84-8 CAPLUS
CN Cytidine, 1'-C-methyl- (9CI) (CA INDEX NAME)

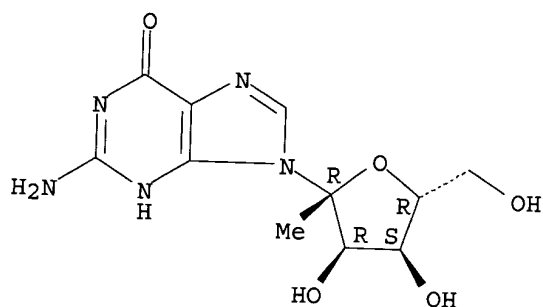
Absolute stereochemistry.

09567863



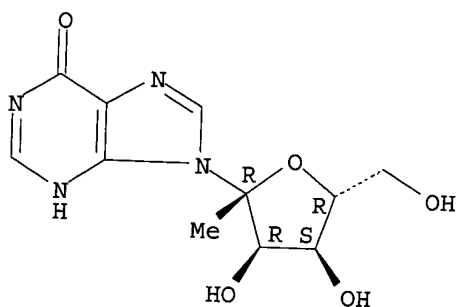
RN 54401-19-3 CAPLUS
CN Guanosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



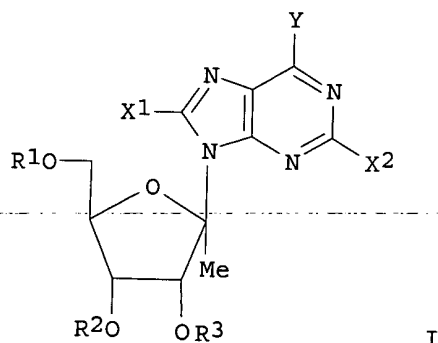
RN 374750-31-9 CAPLUS
CN Inosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 12 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2001:868467 CAPLUS
DN 136:6296
TI Preparation of antiviral nucleosides and methods for treating hepatitis C virus
IN Sommadossi, Jean-Pierre; Lacolla, Paulo
PA Novirio Pharmaceuticals Limited, Cayman I.; Universita degli Studi di Cagliari
SO PCT Int. Appl., 296 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	WO 2001090121	A2	20011129	WO 2001-US16671	20010523
	WO 2001090121	A3	20020502		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 2001074906	A5	20011203	AU 2001-74906	20010523
	US 2003050229	A1	20030313	US 2001-864078	20010523
	EP 1292603	A2	20030319	EP 2001-941564	20010523
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	NO 2002005627	A	20030106	NO 2002-5627	20021122
PRAI	US 2000-206585P	P	20000523		
	WO 2001-US16671	W	20010523		
OS	MARPAT 136:6296				
GI					



AB A method and compn. for treating a host infected with hepatitis C comprising administering an effective hepatitis C treatment amt. of a described 1'-, 2'- or 3'-modified nucleosides I, wherein : R1-R3 and R are independently H, phosphate (including mono, di- or triphosphate and a stabilized phosphate prodrug); acyl; alkyl; sulfonate ester including alkyl or arylalkyl sulfonyl including methanesulfonyl and benzyl, wherein the Ph group is optionally substituted with one or more substituents as described in the definition of aryl given herein; a lipid, including a phospholipid; an amino acid; a carbohydrate; a peptide; a cholesterol; or other pharmaceutically acceptable leaving group which when administered in vivo is capable of providing a compd. wherein R1-R3 are independently H or phosphate; Y is hydrogen, bromo, chloro, fluoro, iodo, OR4, NR4R5 or SR4; X1 and X2 are independently selected from the group consisting of H, straight chained, branched or cyclic alkyl, CO-alkyl, CO-aryl, CO-alkoxyalkyl, chloro, bromo, fluoro, iodo, OR4, NR4R5 or SR4; and R4 and R5 are independently hydrogen, acyl, alkyl or a pharmaceutically acceptable salt or prodrug thereof, is provided. Thus, I (R1-R3 = X1 = X2 = H, Y = NH2) was prepd. and tested in Cynomolgus monkeys as antiviral agent. Oral bioavailability in monkeys, bone human bone marrow toxicity (IC50 > 10⁻⁶ .mu.M), and mitochondrial toxicity, were reported .

IT 16848-12-7P 34441-68-4P 38946-83-7P

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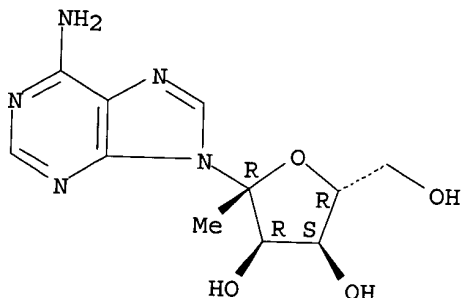
38946-84-8P 54401-19-3P 374750-31-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of antiviral nucleosides and methods for treating hepatitis C virus)

RN 16848-12-7 CAPLUS

CN Adenosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

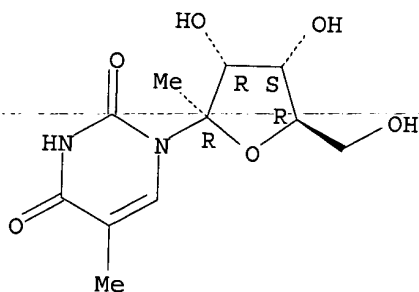
Absolute stereochemistry.



RN 34441-68-4 CAPLUS

CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

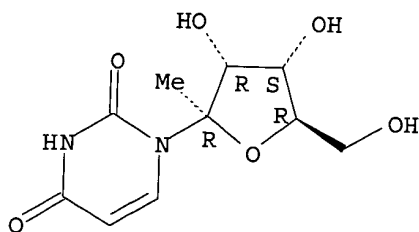
Absolute stereochemistry.



RN 38946-83-7 CAPLUS

CN Uridine, 1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

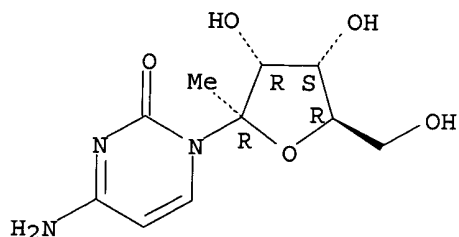


RN 38946-84-8 CAPLUS

CN Cytidine, 1'-C-methyl- (9CI) (CA INDEX NAME)

09567863

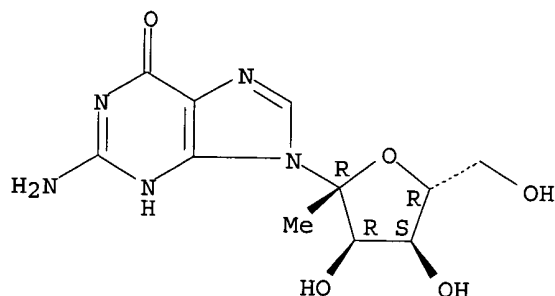
Absolute stereochemistry.



RN 54401-19-3 CAPLUS

CN Guanosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

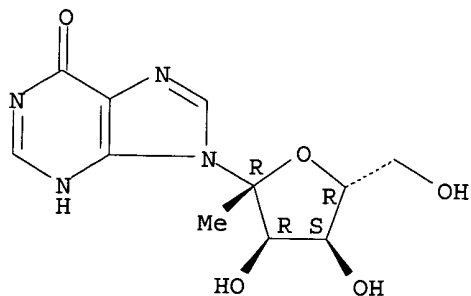
Absolute stereochemistry.



RN 374750-31-9 CAPLUS

CN Inosine, 1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 13 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 2001:519738 CAPLUS

DN 135:257415

TI Novel Bicyclic Nucleoside Analogue (1S,5S,6S)-6-Hydroxy-5-hydroxymethyl-1-(uracil-1-yl)-3,8-dioxabicyclo[3.2.1]octane: Synthesis and Incorporation into Oligodeoxynucleotides

AU Kvrno, Lisbet; Wengel, Jesper

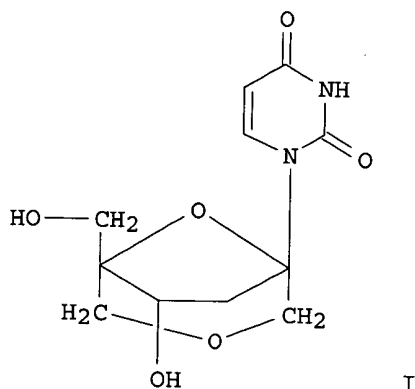
CS Center for Synthetic Bioorganic Chemistry Department of Chemistry, University of Copenhagen, Copenhagen, DK-2100, Den.

SO Journal of Organic Chemistry (2001), 66(16), 5498-5503
CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

09567863

DT Journal
LA English
OS CASREACT 135:257415
GI



AB The novel bicyclic nucleoside (1S,5S,6S)-6-hydroxy-5-hydroxymethyl-1-(uracil-1-yl)-3,8-dioxabicyclo[3.2.1]octane [2'-deoxy-1'-C,4'-C-(2-oxapropano)uridine] I, expected to be restricted into an O4'-endo furanose conformation, was synthesized from the known 1-(3'-deoxy-.beta.-D-psicofuranosyl)uracil. The phosphoramidite deriv. of I was successfully incorporated into oligodeoxynucleotides using std. methods, and thermal denaturation studies showed moderate decreases in duplex stabilities of -2.1 and -1.5 .degree.C per modification toward complementary DNA and RNA, resp.

IT 55697-37-5

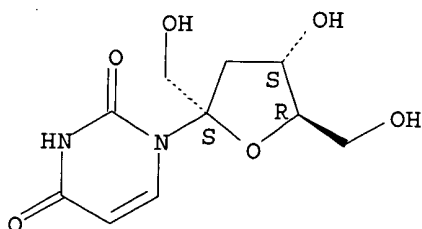
RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. and oligodeoxynucleotide incorporation of novel bicyclic nucleoside analog (1S,5S,6S)-6- hydroxy-5-hydroxymethyl-1-(uracilyl)-3,8-dioxabicyclo[3.2.1]octane)

RN 55697-37-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 175355-17-6P 361344-44-7P 361344-45-8P
361344-46-9P 361344-47-0P 361344-48-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

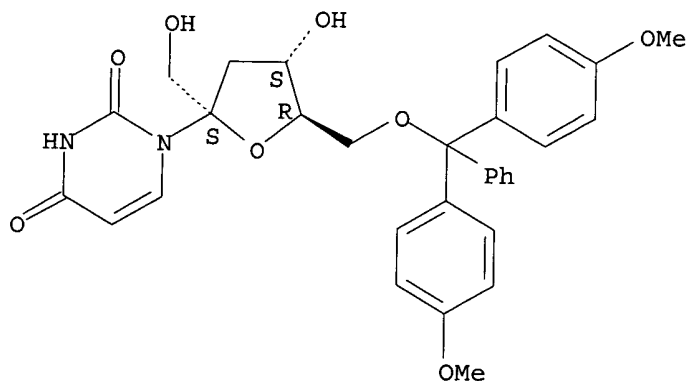
(prepn. and oligodeoxynucleotide incorporation of novel bicyclic nucleoside analog (1S,5S,6S)-6- hydroxy-5-hydroxymethyl-1-(uracilyl)-3,8-dioxabicyclo[3.2.1]octane)

RN 175355-17-6 CAPLUS

09567863

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

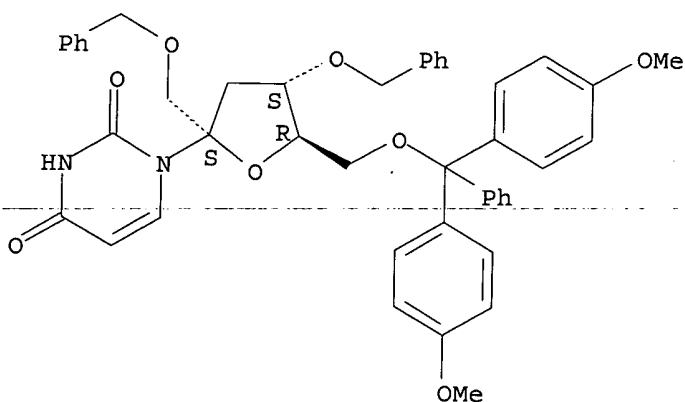
Absolute stereochemistry.



RN 361344-44-7 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[(phenylmethoxy)methyl]-3'-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

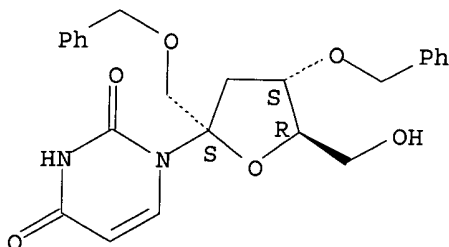
Absolute stereochemistry.



RN 361344-45-8 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[(phenylmethoxy)methyl]-3'-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



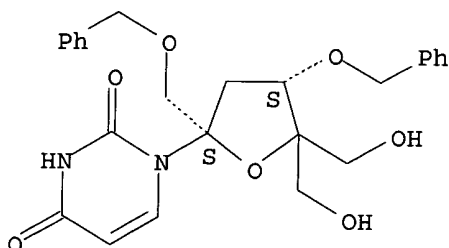
RN 361344-46-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,4S)-tetrahydro-5,5-bis(hydroxymethyl)-4-

09567863

(phenylmethoxy)-2-[(phenylmethoxy)methyl]-2-furanyl]- (9CI) (CA INDEX NAME)

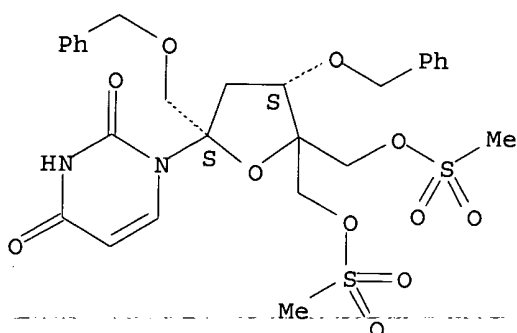
Absolute stereochemistry.



RN 361344-47-0 CAPLUS

CN Uridine, 2'-deoxy-4'-C-[[[(methylsulfonyl)oxy]methyl]-1'-C-[(phenylmethoxy)methyl]-3'-O-(phenylmethyl)-, 5'-methanesulfonate (9CI) (CA INDEX NAME)

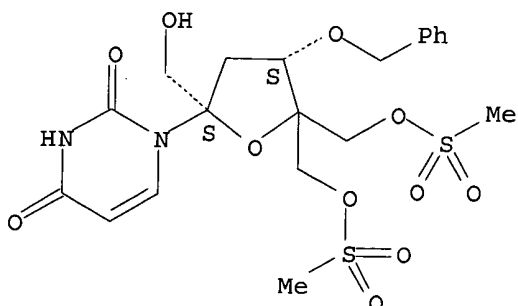
Absolute stereochemistry.



RN 361344-48-1 CAPLUS

CN Uridine, 2'-deoxy-1'-C-(hydroxymethyl)-4'-C-[[[(methylsulfonyl)oxy]methyl]-3'-O-(phenylmethyl)-, 5'-methanesulfonate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 361344-55-0P

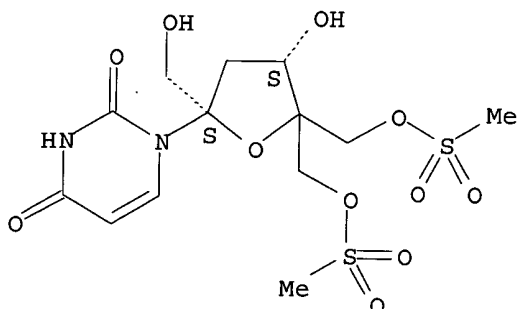
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and oligodeoxynucleotide incorporation of novel bicyclic nucleoside analog (1S,5S,6S)-6-hydroxy-5-hydroxymethyl-1-(uracilyl)-3,8-dioxabicyclo[3.2.1]octane)

RN 361344-55-0 CAPLUS

09567863

CN Uridine, 2'-deoxy-1'-C-(hydroxymethyl)-4'-C-[[methylsulfonyl]oxy]methyl]-, 5'-methanesulfonate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

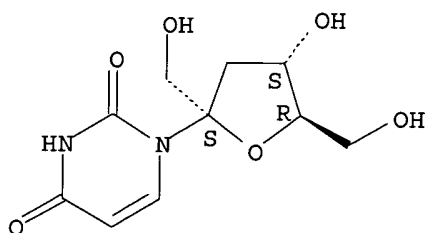


RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 14 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2001:481502 CAPLUS
DN 135:227197
TI Synthesis of a Novel Bicyclic Nucleoside Restricted to an S-Type Conformation and Initial Evaluation of Its Hybridization Properties When Incorporated into Oligodeoxynucleotides
AU Kvrno, Lisbet; Wightman, Richard H.; Wengel, Jesper
CS Center for Synthetic Bioorganic Chemistry Department of Chemistry, University of Copenhagen, Copenhagen, DK-2100, Den.
SO Journal of Organic Chemistry (2001), 66(15), 5106-5112
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 135:227197
AB The phosphoramidite (1S,3R,4S)-3-(2-cyanoethoxy(diisopropylamino)phosphinoxymethyl)-5-N-(4-monomethoxytrityl)-1-(uracil-1-yl)-5-aza-2-oxabicyclo[2.2.1]heptane of a novel bicyclic nucleoside structure was synthesized from the known 1-(3'-deoxy-.beta.-D-psicofuranosyl)uracil. Conformational anal. of its structure verified its expected S-type furanose conformation, and the secondary amino group in the 4'-position allowed for incorporation into oligonucleotides using 5'.fwdarw.3' directed oligonucleotide synthesis as previously described for phosphoramidates. Thermal denaturation studies showed rather large decreases in duplex stabilities of -4.3 and -2.7 .degree.C per modification toward complementary DNA and RNA, resp.
IT 55697-37-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of a novel bicyclic nucleoside restricted to an S-type conformation and initial evaluation of its hybridization properties when incorporated into oligodeoxynucleotides)
RN 55697-37-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



IT 358625-34-0P 358625-37-3P 358625-52-2P

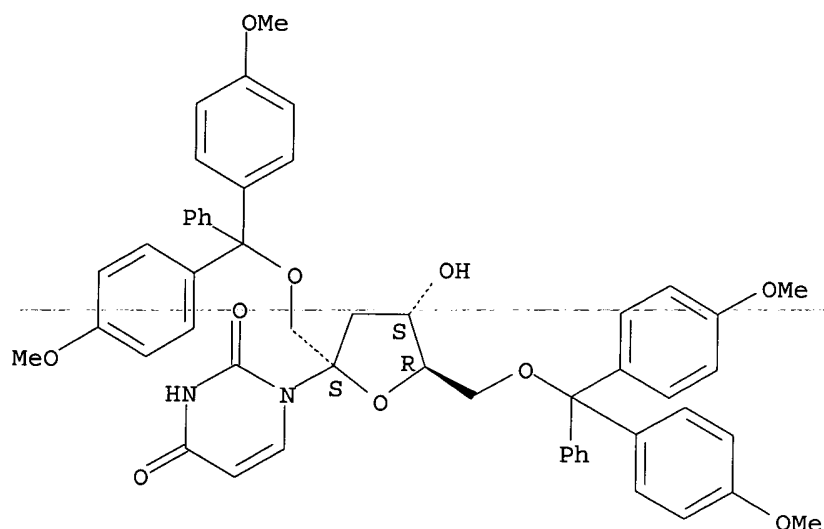
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of a novel bicyclic nucleoside restricted to an S-type conformation and initial evaluation of its hybridization properties when incorporated into oligodeoxynucleotides)

RN 358625-34-0 CAPLUS

CN Uridine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy)methyl]-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

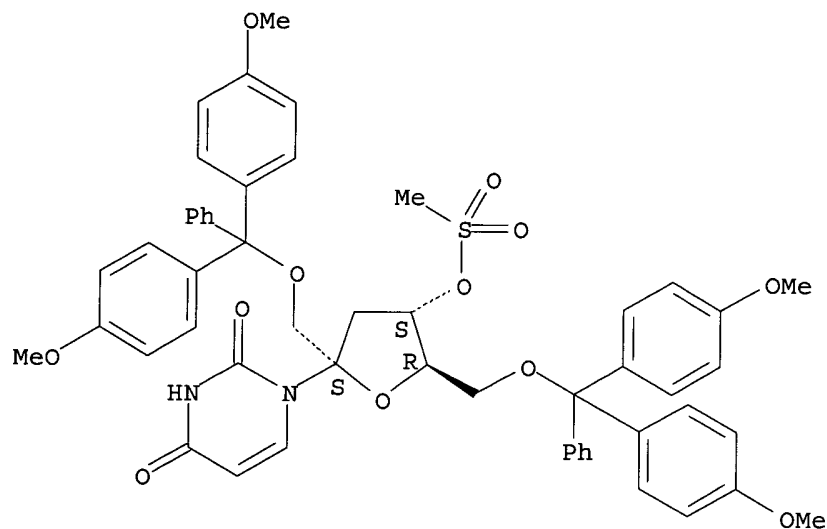


RN 358625-37-3 CAPLUS

CN Uridine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy)methyl]-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-, 3'-methanesulfonate (9CI) (CA INDEX NAME)

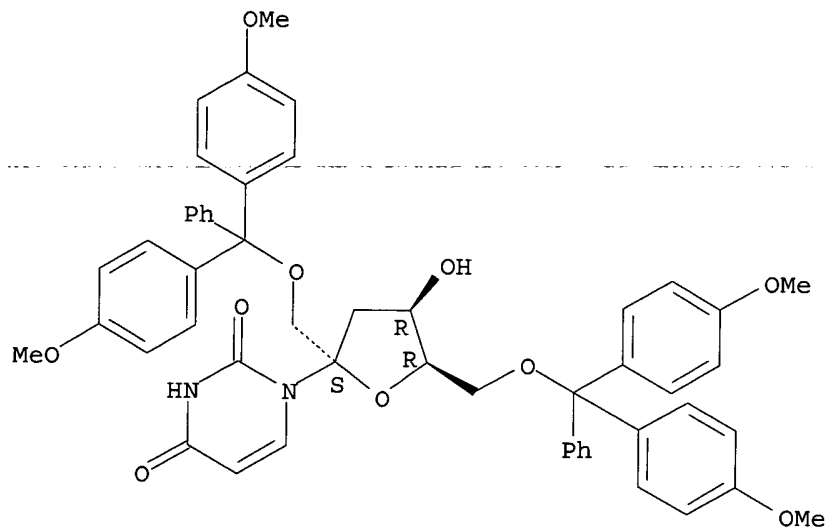
Absolute stereochemistry.

09567863



RN 358625-52-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,6-bis-O-[bis(4-methoxyphenyl)phenylmethyl]-3-deoxy-.beta.-D-threo-2-hexulofuranosyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

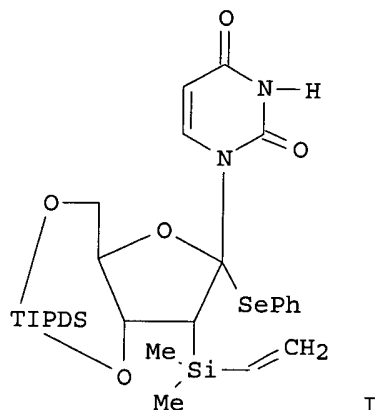


RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 15 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2001:436267 CAPLUS
DN 135:211209
TI Nucleosides and nucleotides. Part 205. An efficient method for the preparation of 1'.alpha.-branched-chain sugar pyrimidine ribonucleosides from uridine: the first conversion of a natural nucleoside into 1'-substituted ribonucleosides
AU Kodama, Tetsuya; Shuto, Satoshi; Nomura, Makoto; Matsuda, Akira
CS Graduate School of Pharmaceutical Sciences, Hokkaido University, Sapporo, 060-0812, Japan

09567863

SO Chemistry--A European Journal (2001), 7(11), 2332-2340
 CODEN: CEUJED; ISSN: 0947-6539
 PB Wiley-VCH Verlag GmbH
 DT Journal
 LA English
 OS CASREACT 135:211209
 GI



AB 1-[1-C-Phenylseleno-3,5-O-(1,1,3,3-tetraisopropylidisiloxane-1,3-diyl)-.beta.-D-ribofuranosyl]uracil was successfully synthesized by enolization of the 3',5'-O-TIPDS-2'-ketouridine, and was subjected to a radical reaction with a vinylsilyl tether-an efficient procedure for prepg. 1'.alpha.-branched-chain sugar pyrimidine nucleosides. Successive treatment of the 3',5'-O-TIPDS-2'-ketouridine with LiHMDS and PhSeCl in THF at < - 70.degree.C gave the desired 1'-phenylseleno products in 85% yield as an anomeric mixt. Highly stereoselective redn. at the 2'-carbonyl of the 1'.alpha.-product occurred from the .beta.-face by using NaBH4/CeCl3 in MeOH, and subsequent introduction of a dimethylvinylsilyl tether at the 2'-hydroxyl gave the radical reaction substrate 1-[1-C-phenylseleno-2-O-dimethylvinylsilyl-3,5-O-(1,1,3,3-tetraisopropylidisiloxane-1,3-diyl)-.beta.-D-ribofuranosyl]uracil (I). The photochem. radical atom-transfer reaction of I by using a high-pressure mercury lamp proceeded effectively in benzene to give the exo-cyclized PhSe-transferred product, in which (PhSe)2 proved to be essential as an additive for radical atom-transfer cyclization reactions. Subsequent phenylseleno-group elimination gave the sugar-protected 1'.alpha.-vinyluridine. With this procedure, 1-(1-C-ethenyl-.beta.-D-ribofuranosyl)uracil and 1-(1-C-ethenyl-.beta.-D-ribofuranosyl)cytosine, designed to be potential antitumor agents, were synthesized. This study is the first example of functionalization at the anomeric 1'-position of a nucleoside by starting from a natural nucleoside to produce a ribo-type 1'-modified nucleoside.

IT 357610-08-3P 357610-11-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

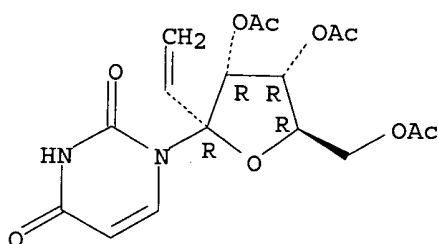
(prepn. of 1'.alpha.-branched-chain pyrimidine ribonucleosides from uridine via enolization, stereoselective redn., and radical atom-transfer cyclization reactions)

RN 357610-08-3 CAPLUS

CN Uridine, 1'-C-ethenyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

09567863

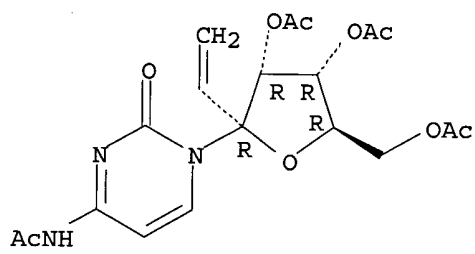
Absolute stereochemistry.



RN 357610-11-8 CAPLUS

CN Cytidine, N-acetyl-1'-C-ethenyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



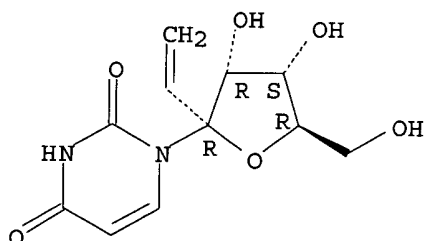
IT 357610-09-4P 357610-12-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of 1'.alpha.-branched-chain pyrimidine ribonucleosides from
uridine via enolization, stereoselective redn., and radical
atom-transfer cyclization reactions)

RN 357610-09-4 CAPLUS

CN Uridine, 1'-C-ethenyl- (9CI) (CA INDEX NAME)

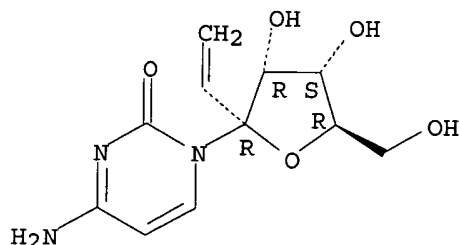
Absolute stereochemistry.



RN 357610-12-9 CAPLUS

CN Cytidine, 1'-C-ethenyl- (9CI) (CA INDEX NAME)

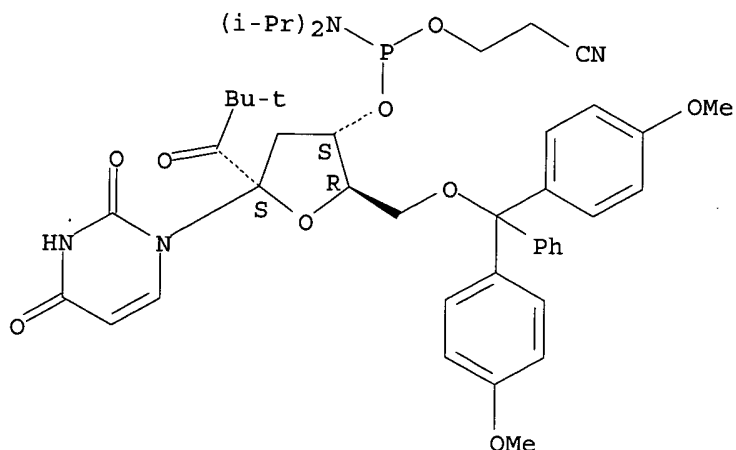
Absolute stereochemistry.



RE.CNT 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

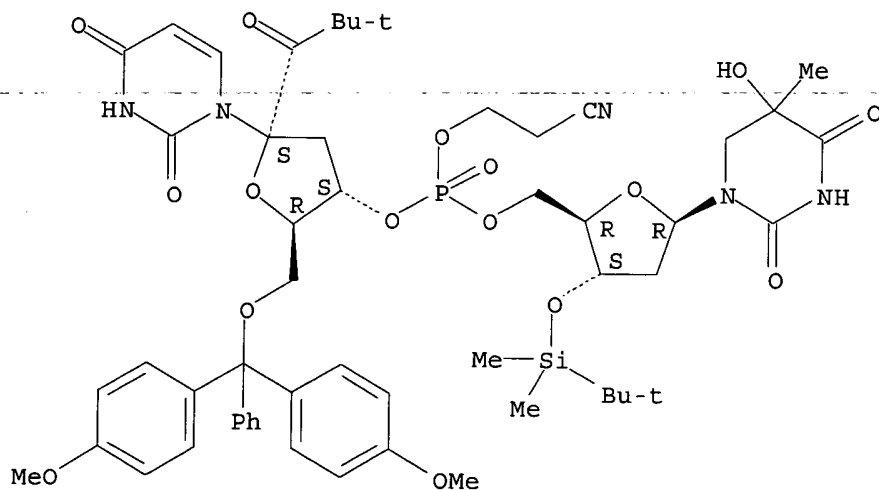
L3 ANSWER 16 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2001:334725 CAPLUS
DN 135:89185
TI Oxygen-Dependent DNA Damage Amplification Involving 5,6-Dihydrothymidin-5-yl in a Structurally Minimal System
AU Tallman, Keri A.; Greenberg, Marc M.
CS Department of Chemistry, Colorado State University, Fort Collins, CO, 80523, USA
SO Journal of the American Chemical Society (2001), 123(22), 5181-5187
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
AB 5,6-Dihydrothymidin-5-yl (1) was independently generated in a dinucleotide from a Ph selenide precursor. Under free radical chain propagation conditions, the products resulting from hydrogen atom donation and radical-pair reaction are the major obsd. products in the absence of O2. The stereoselectivity of the trapping process is dependent on the structure of the hydrogen atom donor. No evidence for internucleotidyl hydrogen atom abstraction by 1 was detected. The tandem lesion resulting from hydrogen atom abstraction from the C1' position of the adjacent 2'-deoxyuridine by the peroxy radical derived from 1 is obsd. under aerobic conditions. The structure of this product is confirmed by independent synthesis and its transformation into a second independently synthesized product. Internucleotidyl hydrogen atom abstraction is effected selectively by the 5S-diastereomer of the peroxy radical. The formation of the dinucleotide provides further support for the novel O2-dependent DNA damage amplification mechanism involving 1 reported previously (Greenberg, M. M.; et al. J. Am. Chem. Soc. 1997, 119, 1828).
IT 210755-20-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxygen-dependent DNA damage amplification involving 5,6-dihydrothymidin-5-yl)
RN 210755-20-7 CAPLUS
CN Uridine, 2'-deoxy-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-(2,2-dimethyl-1-oxopropyl)-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 349490-36-4P 349490-37-5P 349490-38-6P
 349490-40-0P 349490-41-1P 349490-42-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (oxygen-dependent DNA damage amplification involving
 5,6-dihydrothymidin-5-yl)
 RN 349490-36-4 CAPLUS
 CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-cyanoethyl)-2'-
 deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)uridylyl-(3'.fwdarw.5')-3'-O-[(1,1-
 dimethylethyl)dimethylsilyl]-5,6-dihydro-5-hydroxy- (9CI) (CA INDEX NAME)

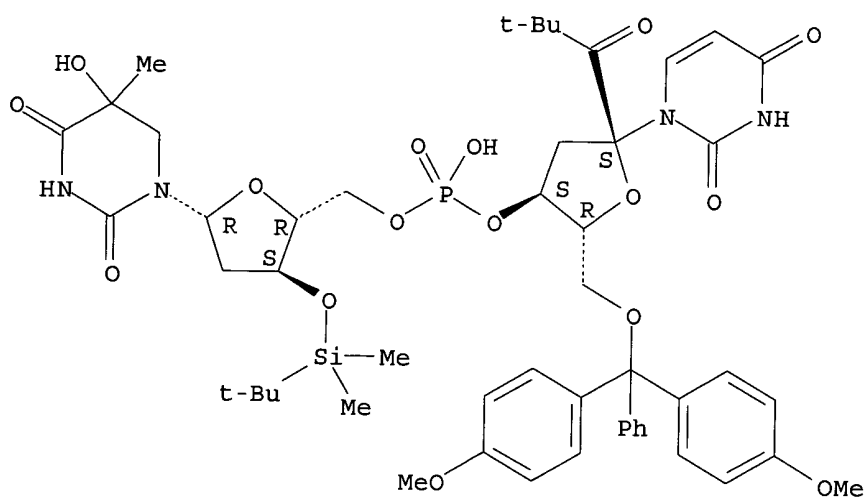
Absolute stereochemistry.



RN 349490-37-5 CAPLUS
 CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-(2,2-
 dimethyl-1-oxopropyl)uridylyl-(3'.fwdarw.5')-3'-O-[(1,1-
 dimethylethyl)dimethylsilyl]-5,6-dihydro-5-hydroxy-, monosodium salt (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.

09567863

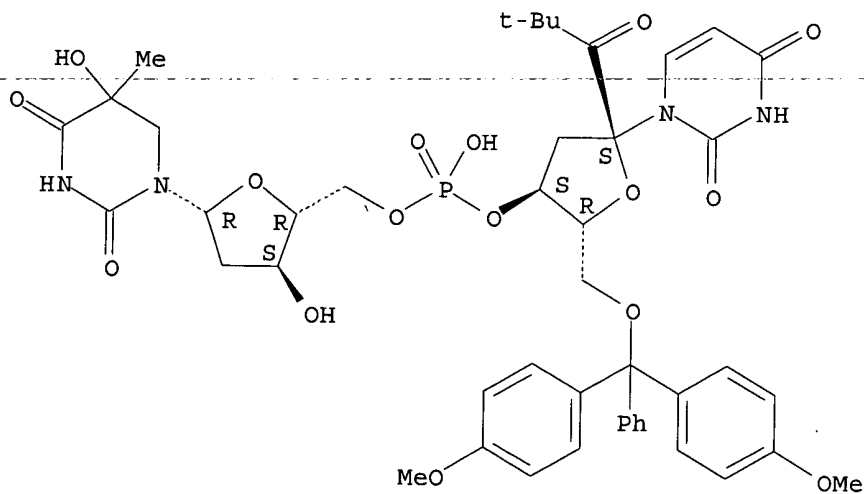


● Na

RN 349490-38-6 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)uridylyl-(3'.fwdarw.5')-5,6-dihydro-5-hydroxy-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



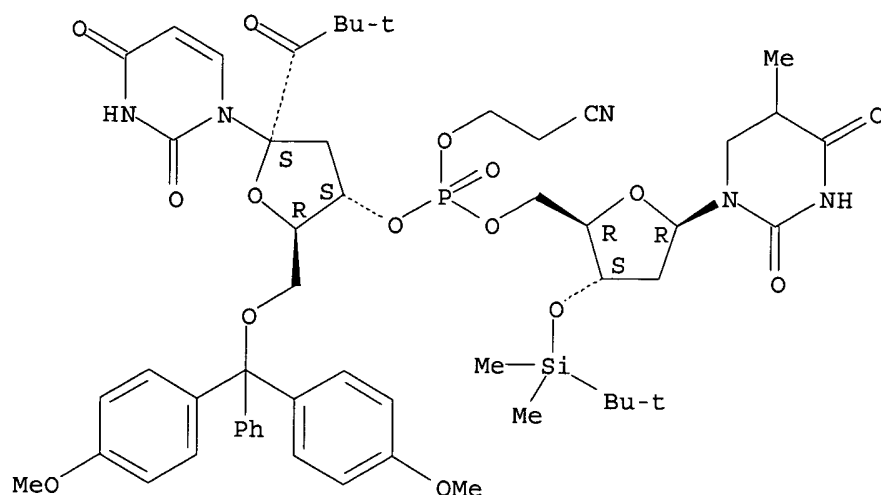
● Na

RN 349490-40-0 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-P-(2-cyanoethyl)-2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)uridylyl-(3'.fwdarw.5')-3'-O-[(1,1-dimethylethyl)dimethylsilyl]-5,6-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

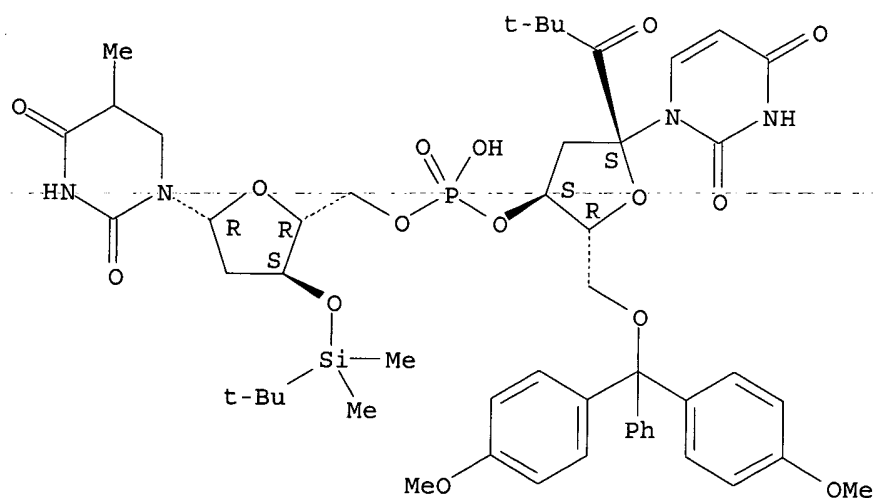
09567863



RN 349490-41-1 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)uridylyl-(3'.fwdarw.5')-3'-O-[(1,1-dimethylethyl)dimethylsilyl]-5,6-dihydro-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

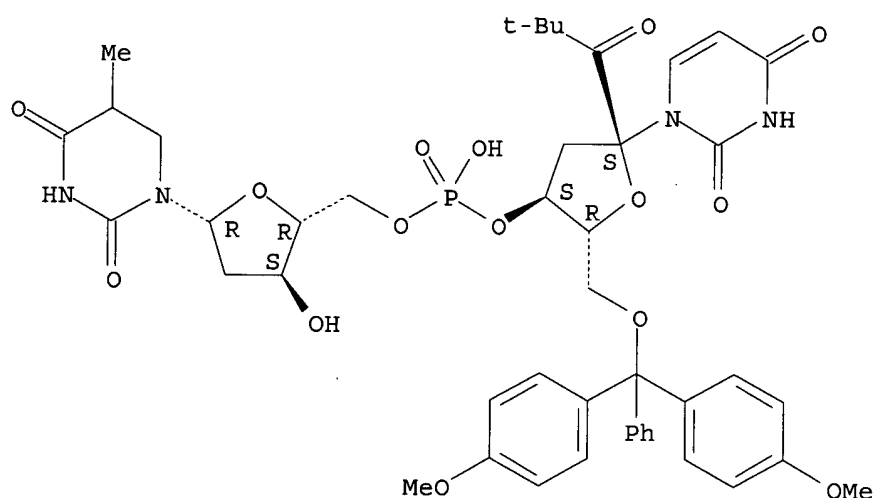


● Na

RN 349490-42-2 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)uridylyl-(3'.fwdarw.5')-5,6-dihydro-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Na

RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 17 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 2001:138891 CAPLUS
DN 135:57707
TI Conformation-specific cleavage of antisense oligonucleotide-RNA duplexes by RNase H
AU Pradeepkumar, Pushpangadan I.; Zamaratski, Edouard; Foldesi, Andras; Chattopadhyaya, Jyoti
CS Department of Bioorganic Chemistry, Biomedical Center, University of Uppsala, Uppsala, S-75123, Swed.
SO Journal of the Chemical Society, Perkin Transactions 2 (2001), (3), 402-408
CODEN: JCSPGI; ISSN: 1472-779X
PB Royal Society of Chemistry
DT Journal
LA English
OS CASREACT 135:57707
AB The North-form (3'-endo) constrained 1-(1',3'-O-anhydro-.beta.-D-psicofuranosyl)thymine block, T, was systematically incorporated at various sites, one at a time, into a set of four antisense oligonucleotides (AONs). The hybrids of these AONs with a matched 15mer RNA target were subjected to the RNase H cleavage reaction, and compared with that of the native counterpart, in order to probe how far the local influence of a single North-locked sugar is transmitted in steering conformational changes in the neighboring nucleotides. It was found that the introduction of a single North-sugar locked T nucleotide in the AONs makes up to four of the neighboring nucleotides at the 5'-end of the modification site resistant to the RNase H cleavage reaction. This suggests that a stretch of 5-nucleotides, including the T nucleotide, in the AON strand adopts a North-type conformation, giving a local RNA/RNA type hybrid structure instead of a regular DNA/RNA type duplex structure. Although these 5-nucleotide regions were completely resistant to RNase H promoted hydrolysis, they could serve as the binding site for the enzyme. Interestingly, none of these local adaptations of the RNA/RNA type structure were observable by CD spectroscopy, showing it to be an unsuitable means of monitoring any subtle alteration of the local

structure. This work, therefore, constitutes an example of how the engineered conformation of a substrate can be used to exploit the stereochem. sensitivity of an enzyme to map local microscopic conformational changes. The other implication of this work is that it provides a new tool to gather local structural information, which may help to optimize the no. of constrained residues which need to be incorporated to induce the antisense strand to adopt either A- or B-type geometry in the hybrid duplex, with or without the loss of RNase H recognition and/or cleavage properties.

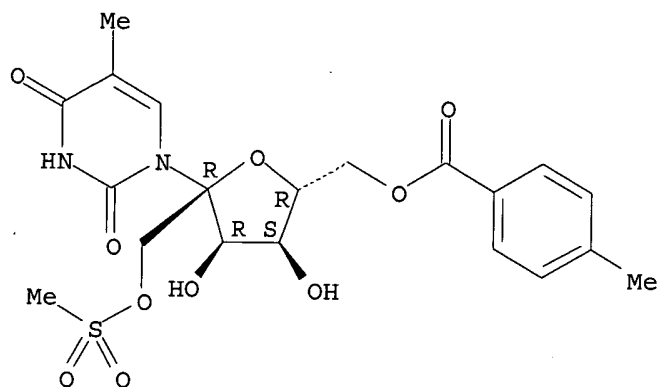
IT 344906-03-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(conformation-specific cleavage of antisense oligonucleotide-RNA duplexes by RNase H)

RN 344906-03-2 CAPLUS

CN Uridine, 5-methyl-1'-C-[[[(methylsulfonyl)oxy]methyl]-, 5'-(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 2001:16928 CAPLUS

DN 134:178753

TI Stereoselective total synthesis of zaragozic acid A based on an acetal [1,2] Wittig rearrangement

AU Tomooka, Katsuhiko; Kikuchi, Makoto; Igawa, Kazunobu; Suzuki, Masaki; Keong, Ping-Huai; Nakai, Takeshi

CS Department of Applied Chemistry, Graduate School of Science and Engineering, Tokyo Institute of Technology, Meguro-ku, Tokyo, 152-8552, Japan

SO Angewandte Chemie, International Edition (2000), 39(24), 4502-4505
CODEN: ACIEF5; ISSN: 1433-7851

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

OS CASREACT 134:178753

AB Zaragozic acid A was prepd. from L-arabinose via stereoselective Wittig rearrangement..

IT 326494-33-1P 326494-38-6P 326494-39-7P

326494-42-2P 326494-43-3P 326494-44-4P

326494-46-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

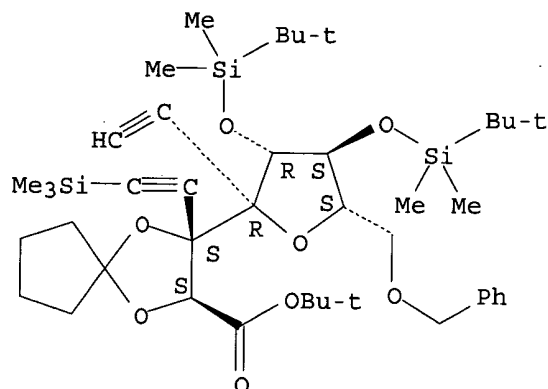
09567863

(stereoselective total synthesis of zaragozic acid a based on an acetal Wittig rearrangement)

RN 326494-33-1 CAPLUS

CN L-erythro-D-altro-Octonic acid, 4,7-anhydro-2,3-O-cyclopentylidene-5,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-4-C-ethynyl-8-O-(phenylmethyl)-3-C-[(trimethylsilyl)ethynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

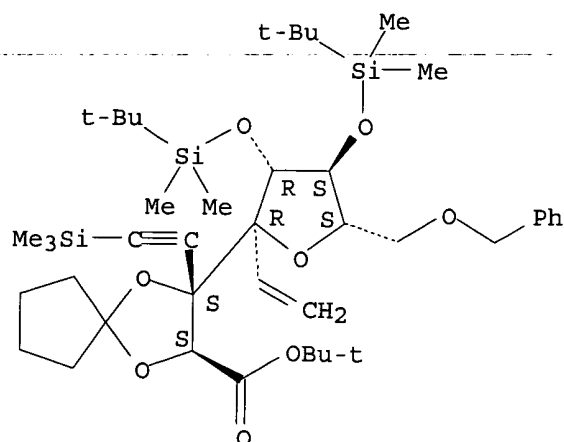
Absolute stereochemistry.



RN 326494-38-6 CAPLUS

CN L-erythro-D-altro-Octonic acid, 4,7-anhydro-2,3-O-cyclopentylidene-5,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-4-C-ethenyl-8-O-(phenylmethyl)-3-C-[(trimethylsilyl)ethynyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

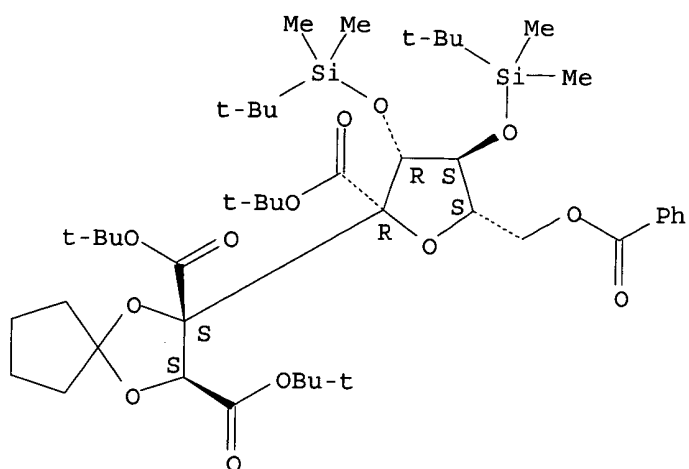


RN 326494-39-7 CAPLUS

CN L-erythro-D-altro-Octonic acid, 4,7-anhydro-2,3-O-cyclopentylidene-3,4-bis-C-[(1,1-dimethylethoxy)carbonyl]-5,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 1,1-dimethylethyl ester, benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

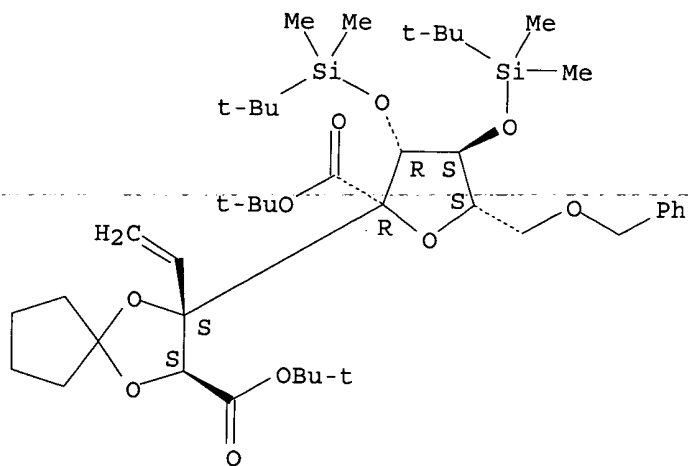
09567863



RN 326494-42-2 CAPLUS

CN L-erythro-D-altro-Octonic acid, 4,7-anhydro-2,3-O-cyclopentylidene-4-C-[(1,1-dimethylethoxy) carbonyl]-5,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-3-C-ethenyl-8-O-(phenylmethyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

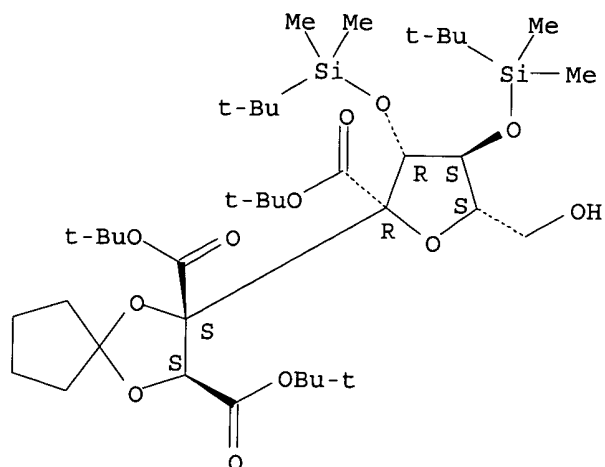


RN 326494-43-3 CAPLUS

CN L-erythro-D-altro-Octonic acid, 4,7-anhydro-2,3-O-cyclopentylidene-3,4-bis-C-[(1,1-dimethylethoxy) carbonyl]-5,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

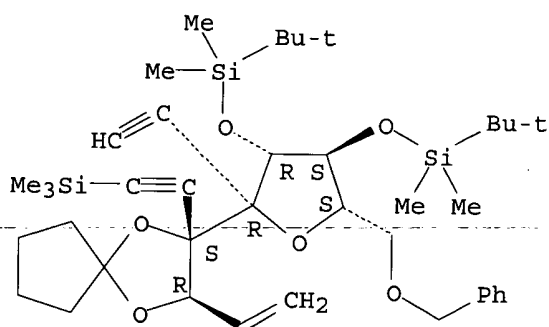
09567863



RN 326494-44-4 CAPLUS

CN L-erythro-D-altro-Non-1-enitol, 5,8-anhydro-3,4-O-cyclopentylidene-1,2-dideoxy-6,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-5-C-ethynyl-9-O-(phenylmethyl)-4-C-[(trimethylsilyl)ethynyl]- (9CI) (CA INDEX NAME)

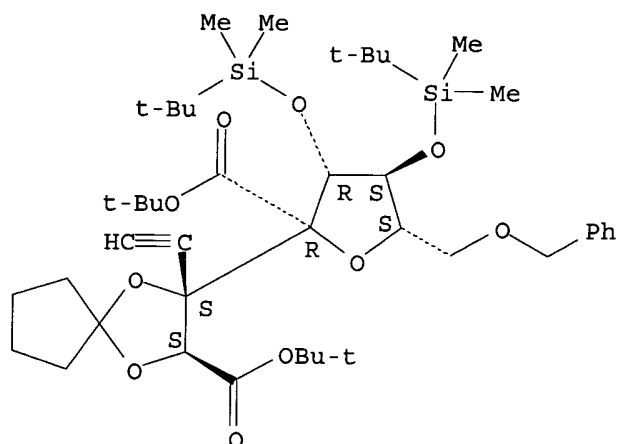
Absolute stereochemistry.



RN 326494-46-6 CAPLUS

CN L-erythro-D-altro-Octonic acid, 4,7-anhydro-2,3-O-cyclopentylidene-4-C-[(1,1-dimethylethoxy)carbonyl]-5,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-3-C-ethynyl-8-O-(phenylmethyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 19 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 2000:632680 CAPLUS

DN 133:346055

TI Models of DNA C1' Radicals. Structural, Spectral, and Chemical Properties of the Thymineylmethyl Radical and the 2'-Deoxyuridin-1'-yl Radical

AU Chatgililoglu, Chrysostomos; Ferreri, Carla; Bazzanini, Rita; Guerra, Maurizio; Choi, Seung-Yong; Emanuel, Calvin J.; Horner, John H.; Newcomb, Martin

CS Co.C.E.A., Consiglio Nazionale delle Ricerche, Bologna, I-40129, Italy

SO Journal of the American Chemical Society (2000), 122(39), 9525-9533
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

AB The thymineylmethyl radical and the 2'-deoxyuridin-1'-yl radical were studied. The former radical was produced in laser flash photolysis (LFP) studies from two precursors derived from thymineylacetic acid, the N-hydroxypyridine-2-thione ester (PTOC ester), and the phenylselenyl ester. The thymineylmethyl radical has an absorbance in the range 315-340 nm. The rate const. for its reaction with octadecanethiol in THF at ambient temp. detd. by LFP methods is $(3.1 \pm 0.6) \times 10^7 \text{ M}^{-1} \text{ s}^{-1}$. The 2'-deoxyuridin-1'-yl radical was produced in bulk photolyses from both diastereomers of the corresponding C1' tert-Bu ketone, 1'-pivaloyl-2'-deoxyuridine, and in LFP studies from one diastereomer. Trapping of this C1' radical with 2-mercaptoethanol, cysteine, or glutathione gave both anomers of 2'-deoxyuridine; the product ratios were similar in each case and insensitive to precursor identity or thiol concns. Rate consts. for reactions of the 2'-deoxyuridin-1'-yl radical with thiols and metal ions were detd. by LFP methods; the resp. rate consts. for reactions with 2-mercaptoethanol, cysteine, glutathione, CuCl_2 , and FeCl_3 in water at ambient temp. are $(2.3 \pm 0.5) \times 10^6$, $(2.9 \pm 0.4) \times 10^6$, $(4.4 \pm 0.3) \times 10^6$, $(7.9 \pm 0.3) \times 10^7$, and ca. $1 \times 10^8 \text{ M}^{-1} \text{ s}^{-1}$. The 2'-deoxyuridin-1'-yl radical was addressed computationally. The radical center is not planar, and an energy profile for interconversion of the two anomeric forms of the radical was produced. Computed vertical transitions for the thymineylmethyl radical and one anomer of the 2'-deoxyuridin-1'-yl radical are in good agreement with the exptl. measured UV-visible spectra.

IT 173349-24-1P 306767-77-1P

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT

09567863

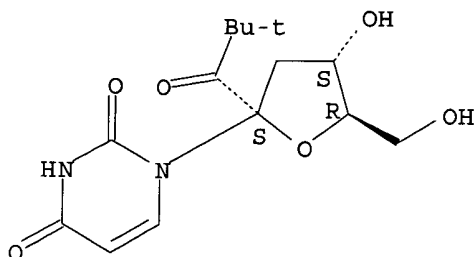
(Reactant or reagent)

(MO calcns. and exptl. studies of structural, spectral, and chem. properties of thymineylmethyl radical and 2'-deoxyuridine-1'-yl radical as models of DNA C1' radicals)

RN 173349-24-1 CAPLUS

CN Uridine, 2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

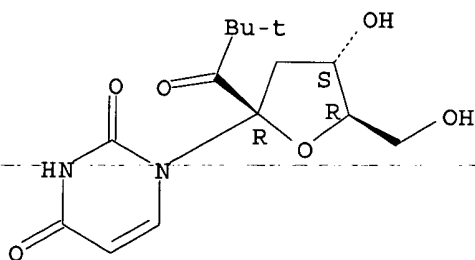
Absolute stereochemistry.



RN 306767-77-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,4S,5R)-2-(2,2-dimethyl-1-oxopropyl)tetrahydro-4-hydroxy-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 306767-78-2

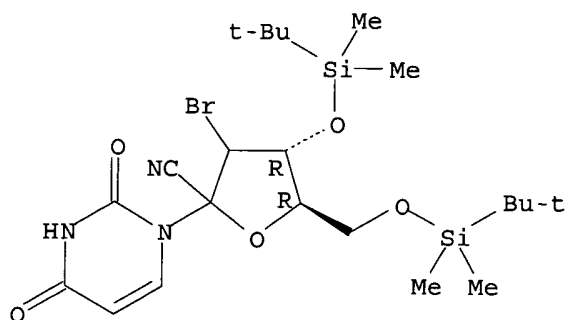
RL: RCT (Reactant); RACT (Reactant or reagent)

(MO calcns. and exptl. studies of structural, spectral, and chem. properties of thymineylmethyl radical and 2'-deoxyuridine-1'-yl radical as models of DNA C1' radicals)

RN 306767-78-2 CAPLUS

CN D-erythro-2-Hexulofuranosonitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-, (3.xi.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 306767-80-6P

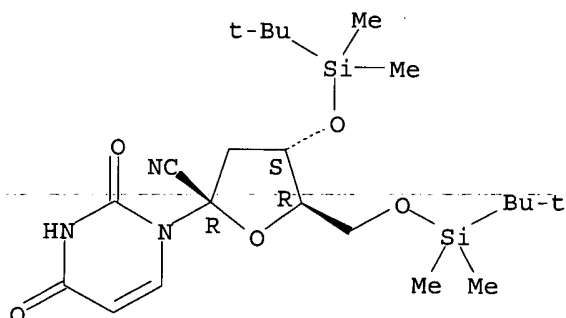
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(MO calcs. and exptl. studies of structural, spectral, and chem. properties of thymine radical and 2'-deoxyuridine-1'-yl radical as models of DNA C1' radicals)

RN 306767-80-6 CAPLUS

CN .alpha.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 92 THERE ARE 92 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 20 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 2000:605248 CAPLUS

DN 133:362919

TI Synthesis and anti-HIV-1 activity of novel bicyclic nucleoside analogues restricted to an S-type conformation

AU Kvrno, Lisbet; Nielsen, Claus; Wightman, Richard H.

CS Department of Chemistry, Heriot-Watt University, Riccarton, Edinburgh, EH14 4AS, UK

SO Perkin 1 (2000), (17), 2903-2906

CODEN: PERKF9

PB Royal Society of Chemistry

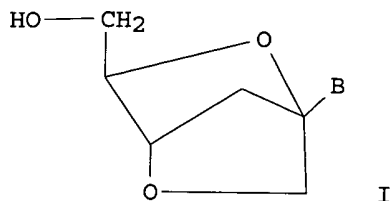
DT Journal

LA English

OS CASREACT 133:362919

GI

09567863



AB (1S,3R,4S)-3-Hydroxymethyl-1-(uracil-1-yl)-2,5-dioxabicyclo[2.2.1]heptane and the corresponding cytosine deriv., nucleoside analogs with a novel bicyclic nucleoside structure I (where B = base), were synthesized in a few steps from the known 1-(3'-deoxy-.beta.-D-psicofuranosyl)uracil. NOE expts. verified the bicyclic nucleosides to be restricted to the expected S-type furanose conformation while the nucleobase is in an anti-conformation. Both nucleosides proved to be devoid of anti-HIV activity in MT-4 cells, which further supports the hypothesis that conformational flexibility of the furanose ring in a nucleoside analog is necessary to obtain both intracellular 5'-triphosphorylation and inhibition of HIV-1 reverse transcriptase.

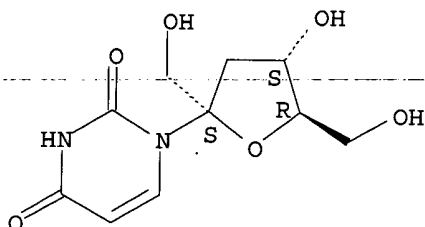
IT 55697-37-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and anti-HIV activity of novel bicyclic nucleoside analogs restricted to an S-type conformation)

RN 55697-37-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 175355-17-6P 307306-29-2P

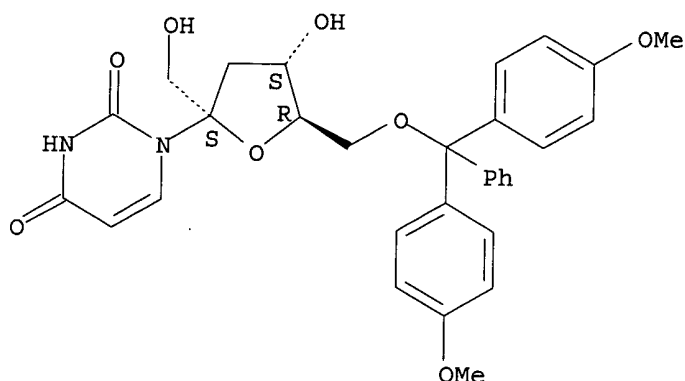
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and anti-HIV activity of novel bicyclic nucleoside analogs restricted to an S-type conformation)

RN 175355-17-6 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-(hydroxymethyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

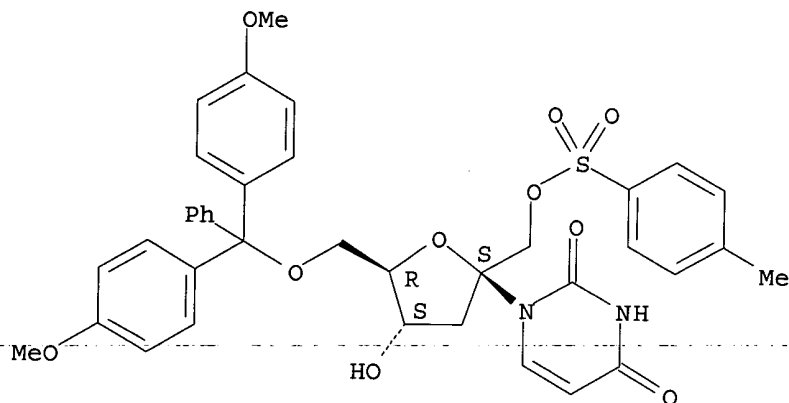
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RN 307306-29-2 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[[[(4-methylphenyl)sulfonyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 21 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 2000:25369 CAPLUS

DN 133:115693

TI Plasmodium falciparum: Isolation and Characterisation of a Gene Encoding Protozoan GMP Synthase

AU McConkey, Glenn A.

CS Department of Biology, University of Leeds, Leeds, LS2 9JT, UK

SO Experimental Parasitology (2000), 94(1), 23-32

CODEN: EXPAAA; ISSN: 0014-4894

PB Academic Press

DT Journal

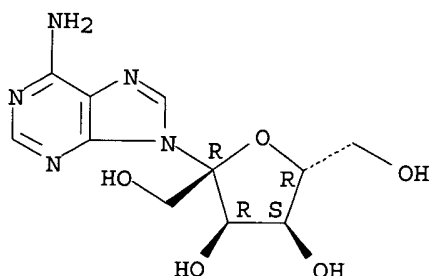
LA English

AB The final step in guanylate nucleotide biosynthesis is catalyzed by GMP synthase. This paper presents the first isolation of a gene encoding a protozoan GMP synthase. The deduced amino acid sequence from Plasmodium falciparum shares 40% identity with yeast GMP synthase and contains motifs conserved in catalysis. Expression of the gene is regulated through the parasite's development in human red blood cells with maximal expression during the point of DNA replication. Psicofuranine, which inhibits GMP synthase, interrupts parasite growth, supporting the role of this enzyme. These findings will aid development of inhibitors of purine salvage in

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malaria parasites. (c) 2000 Academic Press.
IT 1874-54-0, Psicofuranine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(gene encoding protozoan GMP synthase in Plasmodium falciparum - effect of inhibition of GMP synthase on parasite growth)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

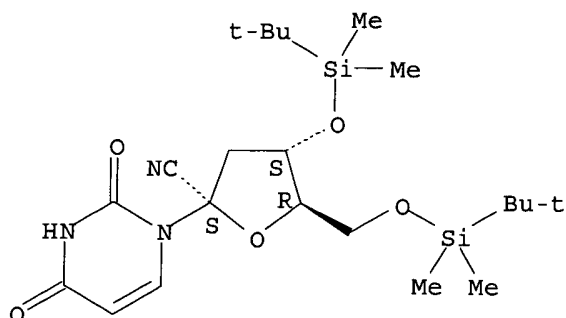
L3 ANSWER 22 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1999:257525 CAPLUS
DN 131:84398
TI Kinetics and Stereoselectivity of Thiol Trapping of Deoxyuridin-1'-yl in Biopolymers and Their Relationship to the Formation of Premutagenic .alpha.-Deoxynucleotides
AU Hwang, Jae-Taeg; Greenberg, Marc M.
CS Department of Chemistry, Colorado State University, Fort Collins, CO, 80523, USA
SO Journal of the American Chemical Society (1999), 121(18), 4311-4315
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
AB .alpha.-Deoxynucleotides are potentially deleterious lesions when produced in DNA. They are presumably formed in part via misrepair of the resp. C1'-nucleotide radicals by thiols. However, the selectivity and extent to which these lesions are formed via this pathway has not been ascertained. Using the ability to independently generate deoxyuridin-1'-yl (4) at a defined site in a biopolymer, we have detd. that thiol trapping in duplex DNA occurs with high stereoselectivity from the .alpha.-face, resulting in restoration of the naturally occurring .beta.-deoxynucleotide. The obsd. stereoselectivity of thiol trapping in duplex DNA suggests that 4 is intrahelical. The rate const. for hydrogen atom donation to 4 is reduced 2-3-fold in double-stranded DNA compared to single-stranded DNA. This decrease is attributed to the relative inaccessibility of the C1'-position in duplex DNA. The combination of these two properties of 4 indicates that, at O2 concns. present in aerated water, .alpha.-deoxynucleotide formation should constitute a minor component of the reactivity of C1'-radicals. Accordingly, the chem. biol. of other lesions derived from formal damage at C1'-position could be significant.
IT 167023-13-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of photolabile ketone to produce deoxyuridin-1'-yl radical)

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RN 167023-13-4 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



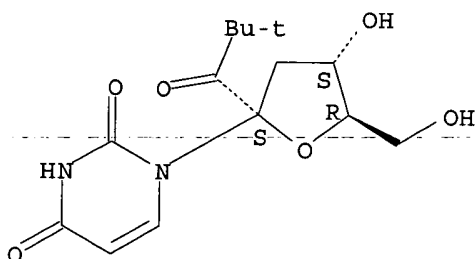
IT 173349-24-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of photolabile ketone to produce deoxyuridin-1'-yl radical)

RN 173349-24-1 CAPLUS

CN Uridine, 2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 153959-67-2

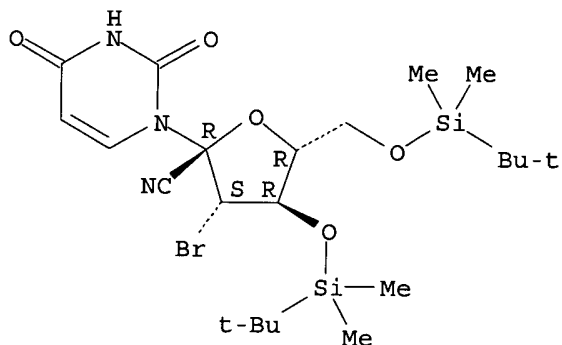
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; prepn. of photolabile ketone to produce deoxyuridin-1'-yl radical)

RN 153959-67-2 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

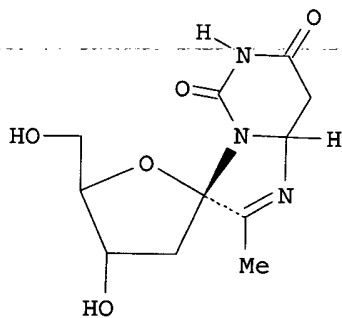
Absolute stereochemistry.

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RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

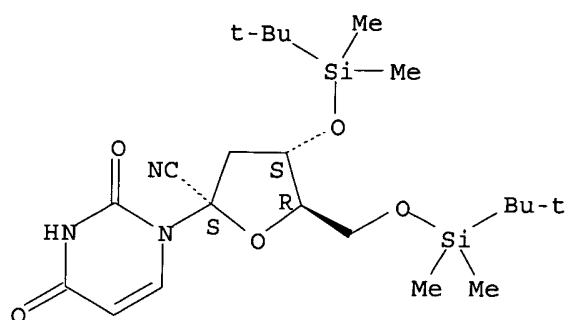
L3 ANSWER 23 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1999:223751 CAPLUS
DN 130:282296
TI Anionically induced formation of anomeric spiro nucleosides from
1'-C-Cyano-2'-deoxyuridine
AU Chatgililoglu, Chrysostomos; Ferreri, Carla; Gimisis, Thanasis
CS I.Co.C.E.A., Consiglio Nazionale delle Ricerche, Bologna, 40129, Italy
SO Tetrahedron Letters (1999), 40(14), 2837-2840
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
GI



AB The reaction of the 1'-C-cyano-2'-deoxyuridine with organo-lithium
reagents can be favorably tuned to give a new class of anomeric spiro
nucleosides, e.g. I.
IT 167023-13-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(anionically induced formation of anomeric spiro nucleosides from
cyanodeoxyuridine)
RN 167023-13-4 CAPLUS
CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-
dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

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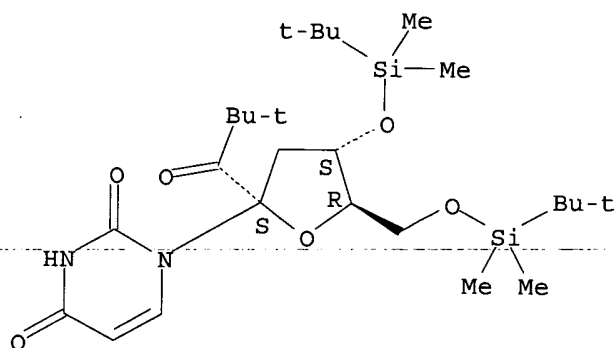
IT 210640-60-1P 222737-90-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(anionically induced formation of anomeric spiro nucleosides from cyanodeoxyuridine)

RN 210640-60-1 CAPLUS

CN Uridine, 2'-deoxy-3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

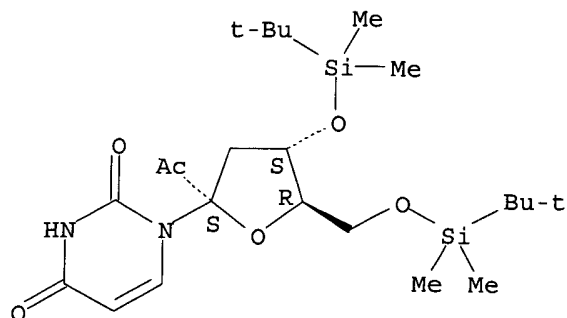
Absolute stereochemistry.



RN 222737-90-8 CAPLUS

CN Uridine, 1'-C-acetyl-2'-deoxy-3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 173349-24-1P 222737-91-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

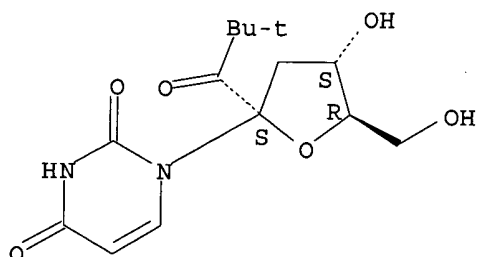
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(anionically induced formation of anomeric spiro nucleosides from
cyanodeoxyuridine)

RN 173349-24-1 CAPLUS

CN Uridine, 2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

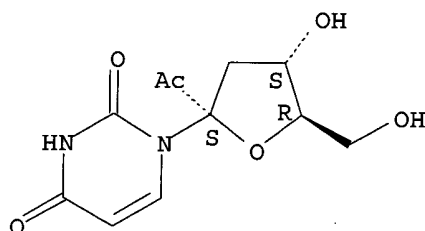
Absolute stereochemistry.



RN 222737-91-9 CAPLUS

CN Uridine, 1'-C-acetyl-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 24 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1999:83401 CAPLUS

DN 130:196906

TI The PdCl2/R3SiH system for the silylation of nucleosides

AU Ferreri, Carla; Costantino, Cristina; Romeo, Roberto; Chatgililoglu, Chrysostomos

CS I.Co.C.E.A., Consiglio Nazionale delle Ricerche, Bologna, 40129, Italy

SO Tetrahedron Letters (1999), 40(6), 1197-1200

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

AB Convenient syntheses of TIPDS-Cl2 and TBDMS-Br from the corresponding hydrides were obtained by using catalytic PdCl2 and CCl4 or CH2Br2, resp. These systems can be successfully applied in tandem procedures for improved silylation of nucleosides.

IT 55697-37-5

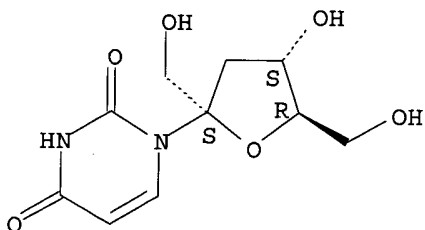
RL: RCT (Reactant); RACT (Reactant or reagent)

(use of the PdCl2/R3SiH system for silylation of nucleosides)

RN 55697-37-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

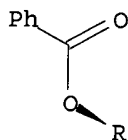
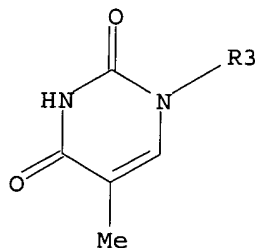


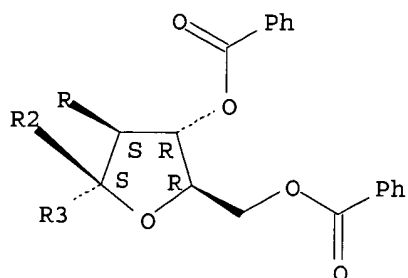
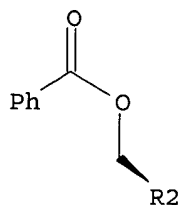
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 25 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1998:760830 CAPLUS
DN 130:110550
TI Synthesis and hybridization property of an oligonucleotide analog
containing a 1',3'-di-O-methylene-.alpha.-D-fructose backbone
AU Zou, Ruiming; Matteucci, Mark D.
CS Gilead Sciences, Inc., Foster City, CA, 94404, USA
SO Bioorganic & Medicinal Chemistry Letters (1998), 8(21), 3049-3052
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science Ltd.
DT Journal
LA English
AB Hydrogen phosphonate monomers of T (thymine) and Cm (5-methylcytosine)
bearing a 1',3'-di-O-methylene-.alpha.-D-fructose sugar moiety were
synthesized and incorporated into an oligonucleotide. Hybridization
studies by thermal denaturation expt. indicated that this oligonucleotide
did not form a duplex with the complementary RNA target.
IT 219537-76-5P 219537-77-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(synthesis and hybridization property of an oligodeoxyribonucleotide
analog contg. a methylene-fructose backbone)
RN 219537-76-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-methyl-1-(1,3,4,6-tetra-O-benzoyl-.alpha.-D-
fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

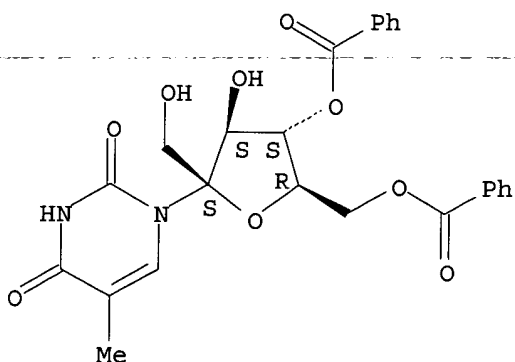




RN 219537-77-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(4,6-di-O-benzoyl-.alpha.-D-fructofuranosyl)-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 26 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1998:441960 CAPLUS

DN 129:109311

TI Preparation of nucleoside uronamides as A3 adenosine receptor agonists
IN Jacobson, Kenneth A.; Gallo-Rodriguez, Carola; Van Galen, Philip J. M.;
Von Lubitz, Dag K. J. E.; Jeong, Heaok Kim

PA United States Dept. of Health and Human Services, USA

SO U.S., 54 pp., Cont.-in-part of U. S. Ser. No. 163,324, abandoned.
CODEN: USXXAM

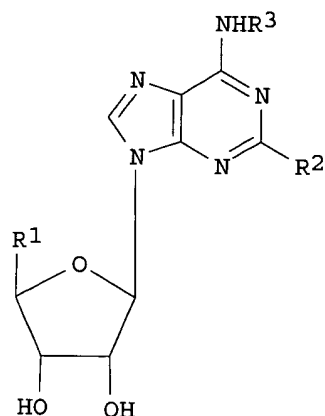
DT Patent

LA English

FAN.CNT 3

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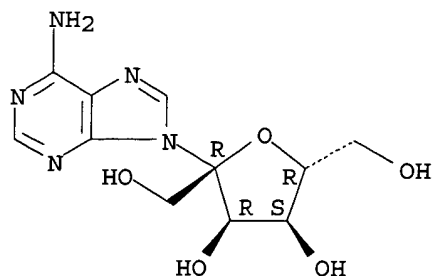
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 5773423	A	19980630	US 1994-274628	19940713
	US 5688774	A	19971118	US 1995-396111	19950228
PRAI	US 1993-91109	B2	19930713		
	US 1993-163324	B2	19931206		
	US 1994-274628	A2	19940713		
OS	MARPAT 129:109311				
GI					

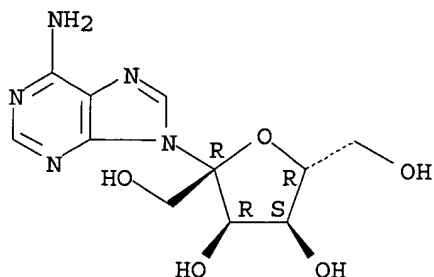


I

- AB The present invention provides N6-benzyladenosine-5'-N-uronamide and related substituted compds. I (R1 = amide; R2 = halo, amino, alkenyl, alkynyl, thio, alkylthio; R3 = S-1-phenylethyl, Bn, phenylethyl), particularly those contg. substituents on the benzyl and/or uronamide groups, and modified xanthine ribosides, as well as pharmaceutical compns. contg. such compds. The present invention also provides a method of selectively activating an A3 adenosine receptor in a mammal, which method comprises acutely or chronically administering to a mammal in need of selective activation of its A3 adenosine receptor a therapeutically effective amt. of a compd. which binds with the A3 receptor so as to stimulate an A3 receptor-dependent response. Thus, N6-(3-iodobenzyl)adenosine was prepd. tested for its affinity in binding at rat brain A1, A2, A3 adenosine receptors (K_i = 9.5-220.0 nM).
- IT **1874-54-0P**, 9-.beta.-D-Psicofuranosyladenine
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of nucleoside uronamides as A3 adenosine receptor agonists)
- RN 1874-54-0 CAPLUS
- CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



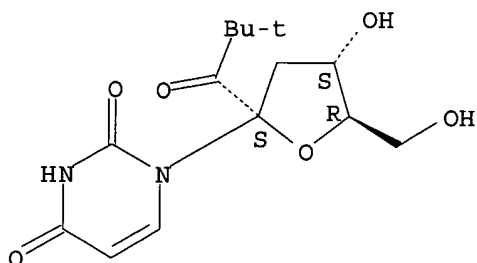


RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 27 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1998:391706 CAPLUS
DN 129:145914
TI DNA damage induced via independent generation of the radical resulting from formal hydrogen atom abstraction from the C1'-position of a nucleotide
AU Tronche, Christopher; Goodman, Brian K.; Greenberg, Marc M.
CS Department of Chemistry, Colorado State University, Fort Collins, CO, 80523, USA
SO Chemistry & Biology (1998), 5(5), 263-271
CODEN: CBOLE2; ISSN: 1074-5521
PB Current Biology Ltd.
DT Journal
LA English
AB Deoxyribonucleotide radicals resulting from formal C1'-hydrogen atom abstraction are important reactive intermediates in a variety of DNA-damage processes. The reactivity of these radicals can be affected by the agents that generate them and the environment in which they are produced. As an initial step in detg. the factors that control the reactivity of these important radical species, we developed a mild method for their generation at a defined site within a biopolymer. Irradn. of oligonucleotides contg. a photolabile nucleotide produced C1'-DNA radicals. In the absence of potential reactants other than O2, approx. 90% of the damage events involve formation of alk.-labile lesions, with the remainder resulting in direct strand breaks. The ratio of alk.-labile lesions to direct strand breaks (.apprx. 9:1) is independent of whether the radical is generated in single-stranded DNA or double-stranded DNA. Strand damage is almost completely quenched under anaerobic conditions in the presence of low thiol concns. Competition studies with O2 indicate that the trapping rate of C1'-DNA radicals by .beta.-mercaptoethanol is .apprx. 1.1 .times. 10⁷ M⁻¹s⁻¹. The mild generation of the C1'-DNA radical in the absence of exogenous oxidants makes it possible to examine their intrinsic reactivity. In the absence of other reactants, the formation of direct strand breaks from C1'-radicals is, at most, a minor pathway. Competition studies between .beta.-mercaptoethanol and O2 indicate that significantly higher thiol concns. than those in vivo or some means of increasing the effective thiol concn. near DNA are needed for these reagents to prevent the formation of DNA lesions arising from the C1'-radical under aerobic conditions.
- IT **173349-24-1**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(DNA damage induced via independent generation of the radical resulting from formal hydrogen atom abstraction from the C1'-position of a nucleotide)
RN 173349-24-1 CAPLUS
CN Uridine, 2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

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Absolute stereochemistry.



IT 210755-21-8P

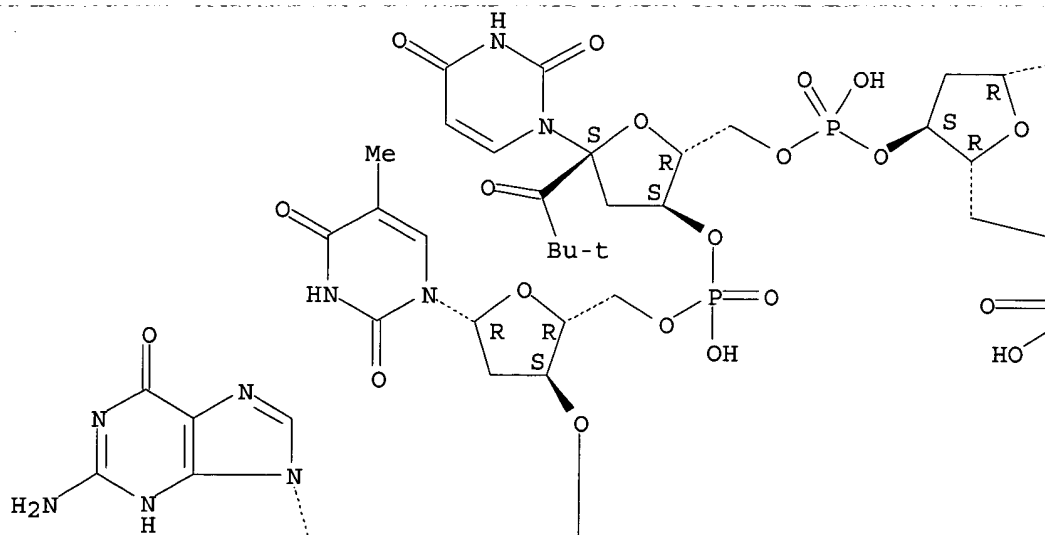
RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(DNA damage induced via independent generation of the radical resulting from formal hydrogen atom abstraction from the C1'-position of a nucleotide)

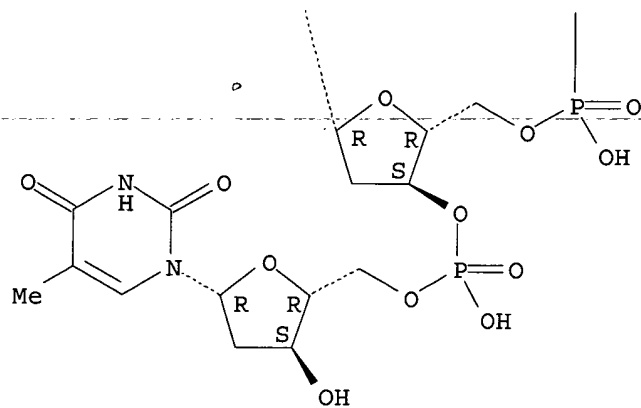
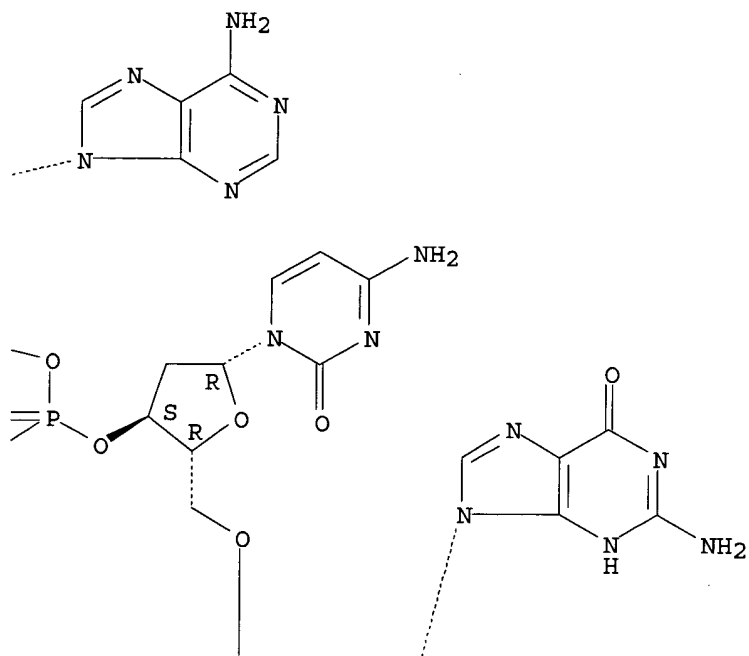
RN 210755-21-8 CAPLUS

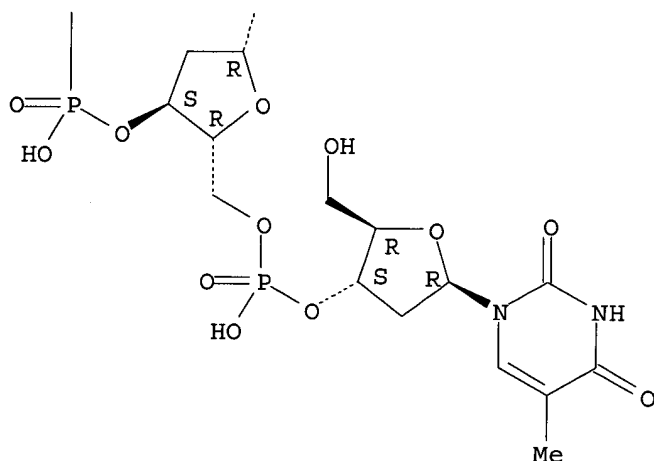
CN Thymidine, thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)uridylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A







IT 210755-20-7

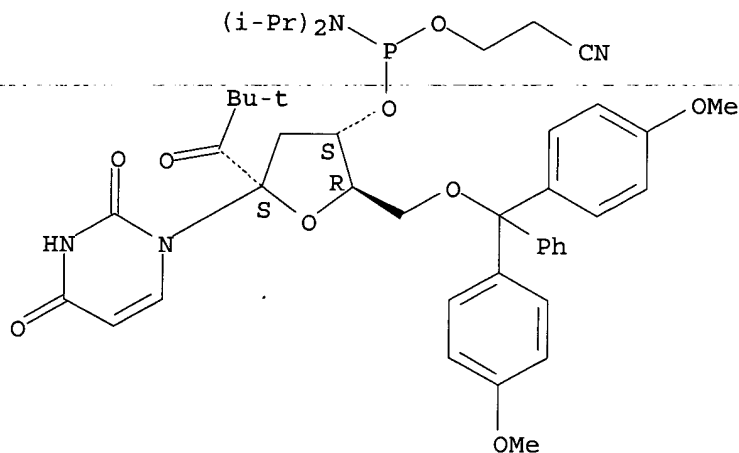
RL: RCT (Reactant); RACT (Reactant or reagent)

(DNA damage induced via independent generation of the radical resulting from formal hydrogen atom abstraction from the C1'-position of a nucleotide)

RN 210755-20-7 CAPLUS

CN Uridine, 2'-deoxy-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-(2,2-dimethyl-1-oxopropyl)-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 28 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1998:362975 CAPLUS

DN 129:136411

TI Fate of the C-1' peroxy radical in the 2'-deoxyuridine system

AU Chatgililoglu, Chrysostomos; Gimisis, Thanasis

CS Consiglio Nazionale delle Ricerche, I.Co.C.E.A., Bologna, 1-40129, Italy

SO Chemical Communications (Cambridge) (1998), (12), 1249-1250

CODEN: CHCOFS; ISSN: 1359-7345

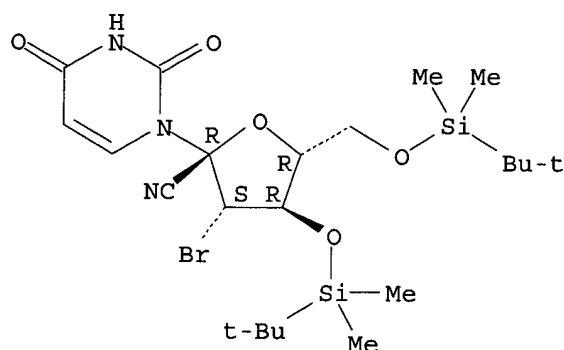
PB Royal Society of Chemistry

DT Journal

09567863

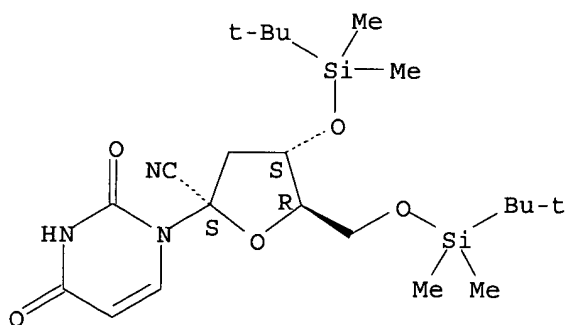
LA English
AB The mechanism of 2-deoxyribonolactone formation from the reaction of photogenerated 2'-deoxyuridin-1'-yl radical with mol. oxygen in water has been investigated.
IT **153959-67-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(fate of the C-1' peroxy radical in the 2'-deoxyuridine system)
RN 153959-67-2 CAPLUS
CN .beta.-D-arabino-2-Hexulofuranosonitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **167023-13-4P 173349-24-1P 210640-60-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(fate of the C-1' peroxy radical in the 2'-deoxyuridine system)
RN 167023-13-4 CAPLUS
CN .beta.-D-erythro-2-Hexulofuranosonitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

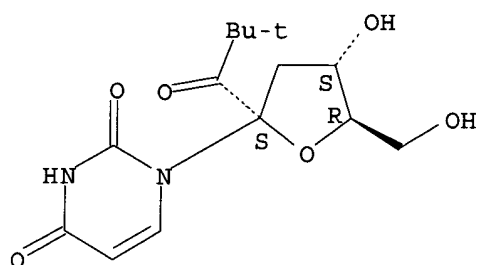
Absolute stereochemistry.



RN 173349-24-1 CAPLUS
CN Uridine, 2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

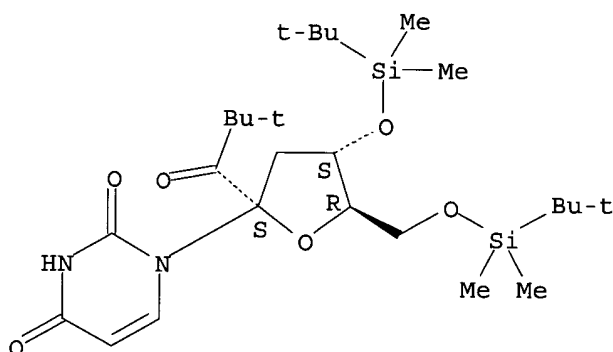
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RN 210640-60-1 CAPLUS

CN Uridine, 2'-deoxy-3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

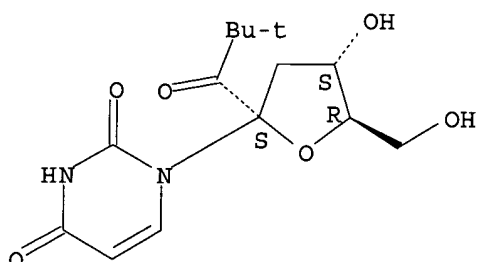
Absolute stereochemistry.



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 29 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1998:348067 CAPLUS
DN 129:95678
TI Spectra and structure of the 2'-deoxyuridin-1'-yl radical
AU Chatgililoglu, Chrysostomos; Gimisis, Thanasis; Guerra, Maurizio;
Ferreri, Carla; Emanuel, Calvin J.; Horner, John H.; Newcomb, Martin;
Lucarini, Marco; Pedulli, Gian Franco
CS I.Co.C.E.A., Consiglio Nazionale delle Ricerche, Bologna, I-40129, Italy
SO Tetrahedron Letters (1998), 39(23), 3947-3950
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
AB The title C-1' radical, obtained by photolysis of the corresponding
tert-Bu ketone in water, was studied spectroscopically by EPR and laser
flash photolysis methods and computationally.
IT 173349-24-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(spectra and structure of the deoxyuridinyl radical formed by
photolysis of acyldeoxyuridine)
RN 173349-24-1 CAPLUS
CN Uridine, 2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

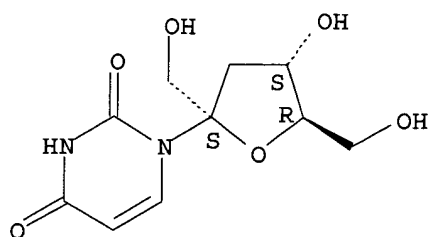


RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 30 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1998:302708 CAPLUS
DN 129:67967
TI Synthesis of 1'-phenazine-tethered psicofuranosyl oligonucleotides: the thermal stability and fluorescence properties of their duplexes and triplexes
AU Ossipov, D.; Chattopadhyaya, J.
CS Department of Bioorganic Chemistry, Biomedical Center, University of Uppsala, Swed.
SO Tetrahedron (1998), 54(21), 5667-5682
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier Science Ltd.
DT Journal
LA English
AB The synthesis of modified oligonucleotides (ODNs), tethered with phenazine (pzn) at C1' of 1-(3'-deoxy-psicofuranosyl)uracil, the thermal stability, and fluorescence properties of their duplexes and triplexes are described. No triplex was found to have formed with modified ODNs with pzn attached at 3'-or at the middle of the strand at neutral pH (7.3), but triplex formation was obsd. at acidic pH (6.0) although they were less stable than the unmodified parent triplex. The same trend was obsd. for duplexes. The fluorescence intensity of pzn in the modified triplexes was enhanced and blue-shifted by .apprx.13 nm relative to the single strand. In contrast, the changes in fluorescence intensities of pzn in the modified duplexes were relatively less compared to the triplexes. The fluorescence intensity increased proportionally as the thermal stabilities of the triplexes increased. A comparison of the fluorescent intensity changes (.DELTA.F) shows that the fluorophore in duplexes (.DELTA.F .apprxeq.-1.2 to +1.5) experiences relatively minor change in the microenvironment compared to that of the triplexes (.DELTA.F .apprxeq.1.5 to 4.5). Nevertheless, in both cases the phenazine residue most probably interacts with the neighboring nucleobases as a weak exterior binder.
IT 55697-37-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of 1'-phenazine-tethered psicofuranosyl oligodeoxyribonucleotides: the thermal stability and fluorescence properties of their duplexes and triplexes)
RN 55697-37-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)-(9CI) (CA INDEX NAME)

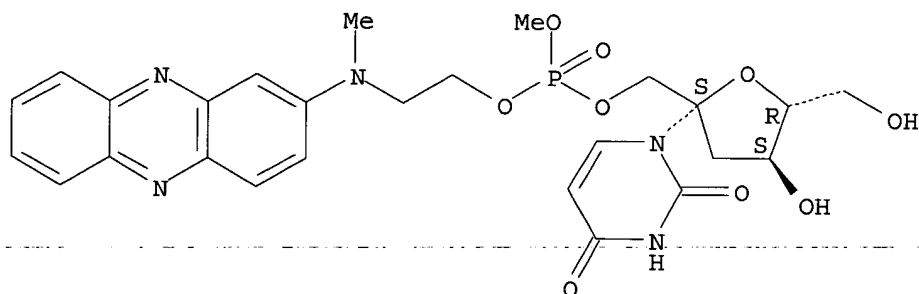
Absolute stereochemistry.

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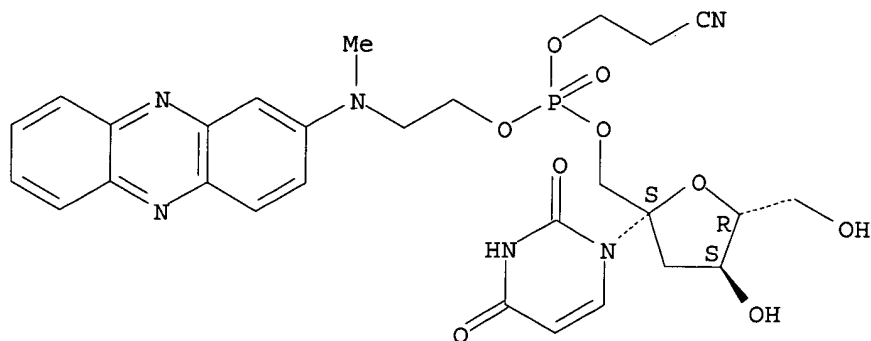
IT 208336-16-7P 208336-17-8P 208336-18-9P
208336-19-0P 208336-20-3P 208336-21-4DP,
CPG-bound
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(synthesis of 1'-phenazine-tethered psicofuranosyl
oligodeoxyribonucleotides: the thermal stability and fluorescence
properties of their duplexes and triplexes)
RN 208336-16-7 CAPLUS
CN Uridine, 2'-deoxy-1'-C-[[[methoxy[2-(methyl-2-
phenazinylamino)ethoxy]phosphinyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 208336-17-8 CAPLUS
CN Uridine, 1'-C-[[[(2-cyanoethoxy)[2-(methyl-2-phenazinylamino)ethoxy]phosph
inyl]oxy]methyl]-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

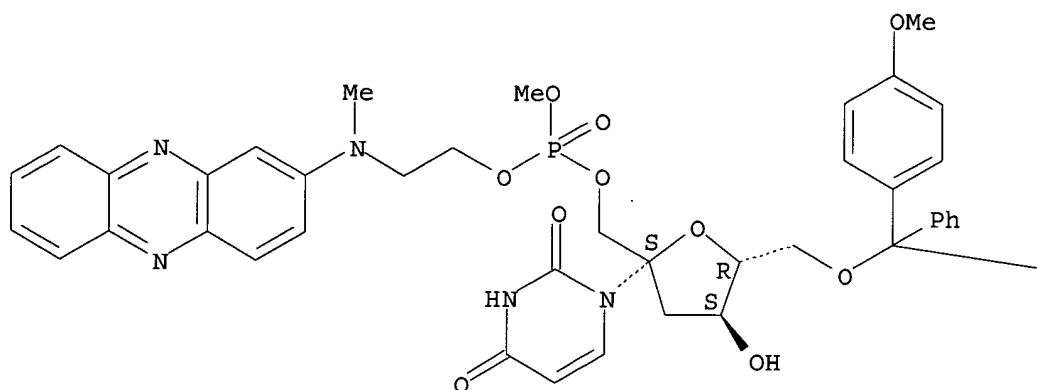


RN 208336-18-9 CAPLUS
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-
[[[methoxy[2-(methyl-2-phenazinylamino)ethoxy]phosphinyl]oxy]methyl]-
(9CI) (CA INDEX NAME)

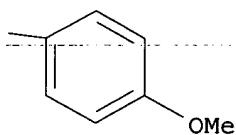
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Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

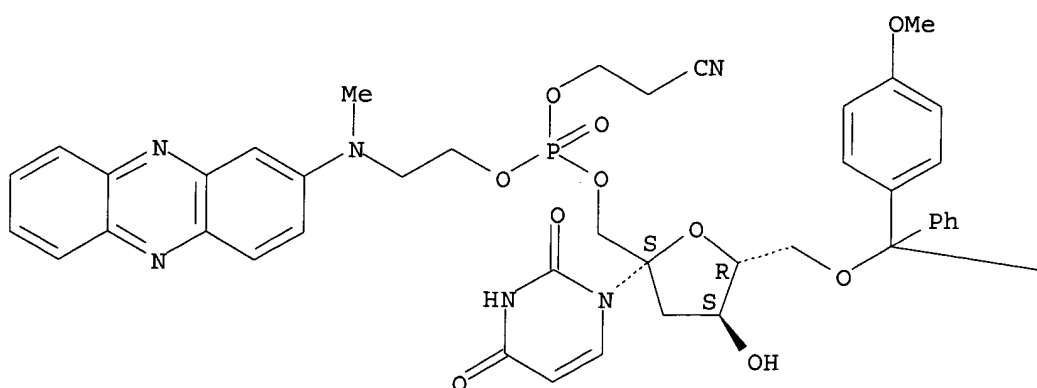


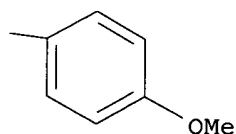
RN 208336-19-0 CAPLUS

CN Uridine, 5'-O- [bis(4-methoxyphenyl)phenylmethyl] -1'-C- [[[(2-cyanoethoxy) [2-(methyl-2-phenazinylamino)ethoxy]phosphinyl]oxy]methyl] -2'-deoxy- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

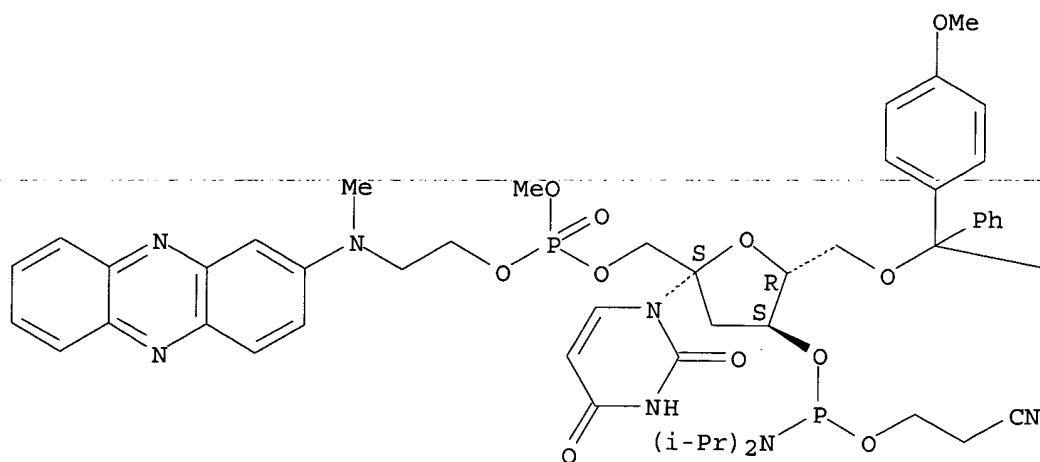


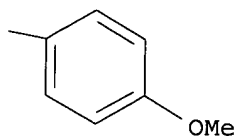


RN 208336-20-3 CAPLUS

CN Uridine, 5'-O- [bis (4-methoxyphenyl)phenylmethyl] -2'-deoxy-1'-C-
 [[methoxy[2-(methyl-2-phenazinylamino)ethoxy]phosphinyl]oxy]methyl]-,
 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



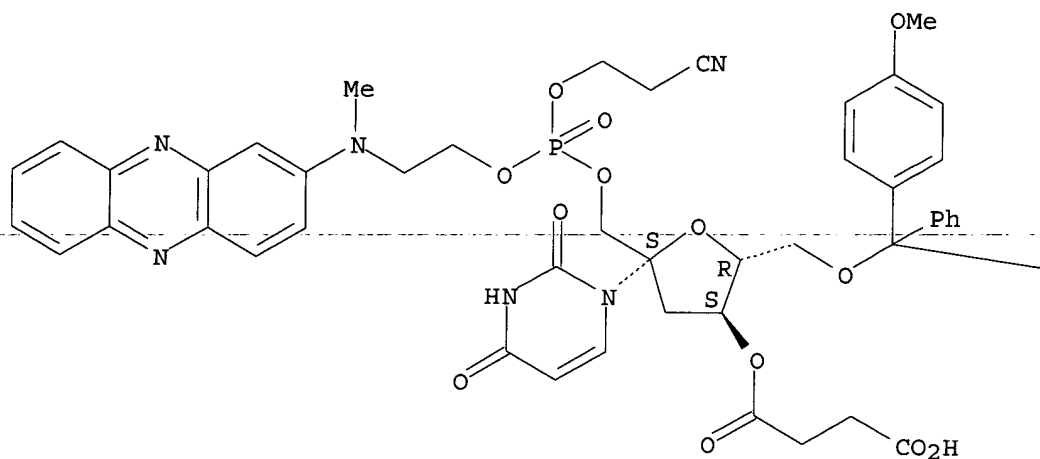


RN 208336-21-4 CAPLUS

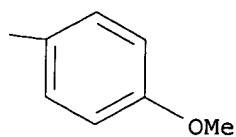
CN Uridine, 5'-O- [bis (4-methoxyphenyl)phenylmethyl] -1'-C- [[(2-cyanoethoxy) [2-(methyl-2-phenazinylamino)ethoxy]phosphinyl]oxy]methyl] -2'-deoxy-,
3'-(hydrogen butanedioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

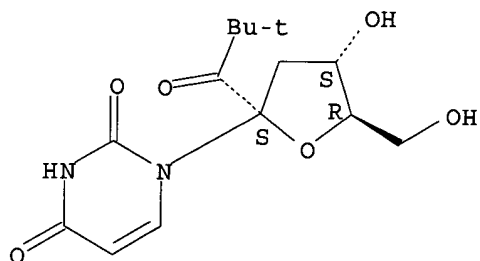


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RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 31 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1998:275464 CAPLUS
DN 129:37630
TI Release of superoxide from nucleoside peroxy radicals, a double-edged sword?
AU Tallman, Keri A.; Tronche, Christopher; Yoo, Dong Jin; Greenberg, Marc M.
CS Department of Chemistry, Colorado State University, Fort Collins, CO, 80523, USA
SO Journal of the American Chemical Society (1998), 120(20), 4903-4909
 CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
AB 5,6-Dihydrothymidin-5-yl (1) and 2'-deoxyuridin-1'-yl (3) were independently generated in soln. under aerobic conditions. The release of superoxide (O₂.bul.-) from the resp. peroxy radicals derived from 1 and 3 was detd. spectrophotometrically. Competition studies enable one to est. that the rate const. for elimination of O₂.bul.- from the peroxy radical (4) derived from 3 is .apprx.1 s⁻¹. This process is competitive with the anticipated rate of trapping of 4 in DNA by glutathione. Relative rate studies indicate that O₂.bul.- generation resulting from the formation of 1 under aerobic conditions competes effectively with trapping of the peroxy radical by Bu₃SnH. Superoxide elimination from the peroxy radical of 1 (2) restores the damaged nucleoside to its unaltered form, implying that this reactive intermediate has a naturally occurring detoxification pathway available to it. However, the freely diffusible superoxide can react further to generate other reactive species capable of damaging nucleic acids, suggesting that the elimination of O₂.bul.- from 2 is a potential double-edged sword.
IT 173349-24-1
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 ~~(release of superoxide from nucleoside peroxy radicals)~~
RN 173349-24-1 CAPLUS
CN Uridine, 2'-deoxy-1'-C- (2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 32 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1997:292602 CAPLUS
DN 127:5269
TI Heterocyclic derivatives of sugars: an NMR study of the formation of 1-glycosyl-3,5-dimethyl-1H-pyrazoles from hydrazones
AU Kett, Warren C.; Batley, Michael; Redmond, John W.
CS School of Chemistry, Macquarie University, North Ryde, NSW 2109, Australia

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SO Carbohydrate Research (1997), 299(3), 129-141
CODEN: CRBRAT; ISSN: 0008-6215

PB Elsevier

DT Journal

LA English

AB Hydrazones were prepd. by treatment of monosaccharides and disaccharides with hydrazine hydrate and converted in high yield to mixts. of 1-glycosyl-3,5-dimethyl-1H-pyrazoles by reaction with pentan-2,4-dione (acetylacetone). The isomeric products were sepd. by HPLC and characterized by NMR spectroscopy. This represents a new approach to the introduction of a heteroarom. label into sugars under nonacidic and nonreducing conditions and it is a process likely to be esp. useful for glycan hydrazones obtained from glycoproteins by hydrazinolysis or beta elimination in the presence of hydrazine.

IT 190259-35-9P 190259-37-1P

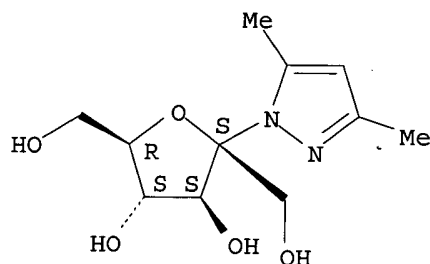
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(NMR study of formation of glycosyldimethylpyrazoles from hydrazones)

RN 190259-35-9 CAPLUS

CN 1H-Pyrazole, 1-.alpha.-D-fructofuranosyl-3,5-dimethyl- (9CI) (CA INDEX NAME)

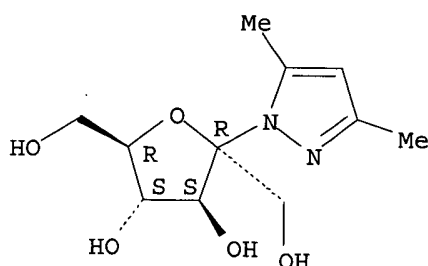
Absolute stereochemistry.



RN 190259-37-1 CAPLUS

CN 1H-Pyrazole, 1-.beta.-D-fructofuranosyl-3,5-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 190259-84-8P 190259-85-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

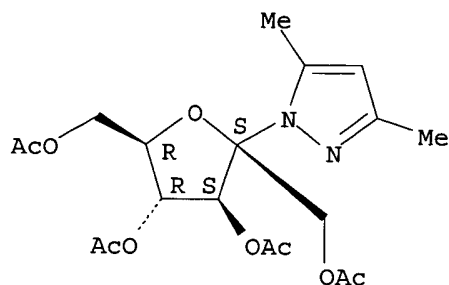
(NMR study of formation of glycosyldimethylpyrazoles from hydrazones)

RN 190259-84-8 CAPLUS

CN 1H-Pyrazole, 3,5-dimethyl-1-(1,3,4,6-tetra-O-acetyl-.alpha.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

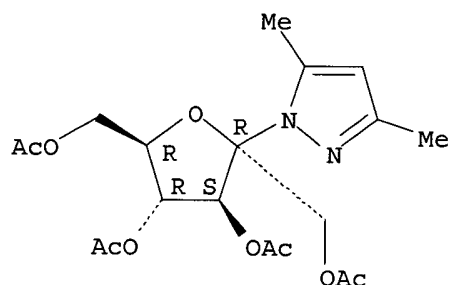
Absolute stereochemistry.

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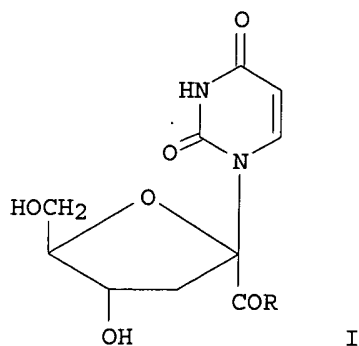


RN 190259-85-9 CAPLUS
CN 1H-Pyrazole, 3,5-dimethyl-1-(1,3,4,6-tetra-O-acetyl-.beta.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 33 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1997:187755 CAPLUS
DN 126:293548
TI C1'-acylated derivatives of 2'-deoxyuridine. Photolabile precursors of 2'-deoxyuridin-1'-yl
AU Greenberg, Marc M.; Yoo, Dong Jin; Goodman, Brian K.
CS Dep. Chem., Colorado State Univ., Ft. Collins, CO, 80523, USA
SO Nucleosides & Nucleotides (1997), 16(1 & 2), 33-40
CODEN: NUNUD5; ISSN: 0732-8311
PB Dekker
DT Journal
LA English
GI



AB C1' acylated derivs. of 2'-deoxyuridine I (R = t-Bu, Ph, i-Pr) were

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synthesized from 1-[3-deoxy-.beta.-D-psicofuranosyl]uracil. The acyl group is introduced via the C1' aldehyde. Following nucleophilic addn., the ketones I are obtained via periodinane oxidn. and desilylation with NH₄F.

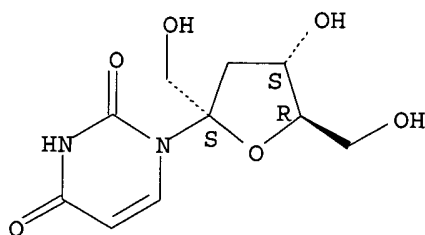
IT 55697-37-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of C1' acylated derivs. of 2'-deoxyuridine)

RN 55697-37-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



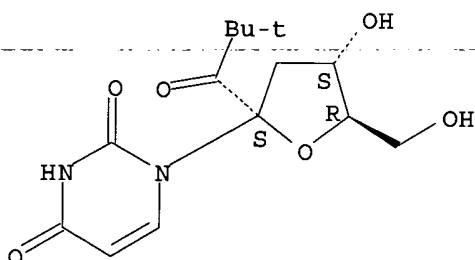
IT 173349-24-1P 189065-31-4P 189065-34-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of C1' acylated derivs. of 2'-deoxyuridine)

RN 173349-24-1 CAPLUS

CN Uridine, 2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

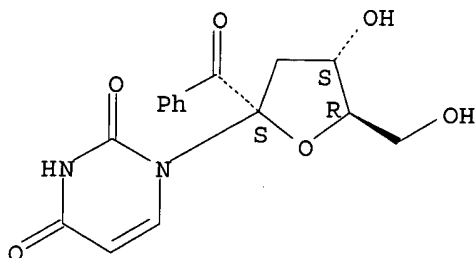
Absolute stereochemistry.



RN 189065-31-4 CAPLUS

CN Uridine, 1'-C-benzoyl-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

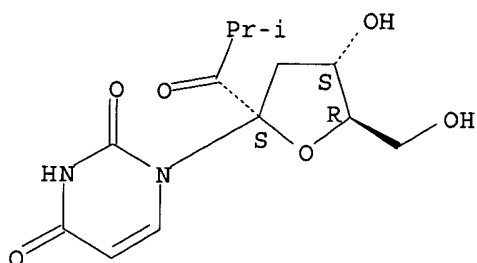


RN 189065-34-7 CAPLUS

09567863

CN Uridine, 2'-deoxy-1'-C-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 34 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1996:702838 CAPLUS

DN 126:19156

TI Synthesis of 1-(1'-cyano-2',3',5'-tri-O-benzoyl-.beta.-D-ribofuranosyl)thymine by ultrasound promotion

AU Chen, Guo-Rong; Lou, Zhen; Xie, Yu-Yuan

CS Inst. Fine Chem., East China Univ. Sci. Technol., Shanghai, 200237, Peop. Rep. China

SO Youji Huaxue (1996), 16(5), 459-461

CODEN: YCHHDX; ISSN: 0253-2786

PB Kexue

DT Journal

LA Chinese

AB The title compd. was prepd. in 96-100% yield by reaction of 1'-C-cyano-1'-bromo-2',3',5'-tri-O-benzoyl-.beta.-D-ribofuranose with 5-methyl-2,4-bis[(trimethylsilyl)oxy]pyrimidine in nitromethane in the presence of Hg(CN)2 under ultrasound promotion. The reaction time was significantly shortened and the yield was significantly improved in comparison with the traditional method.

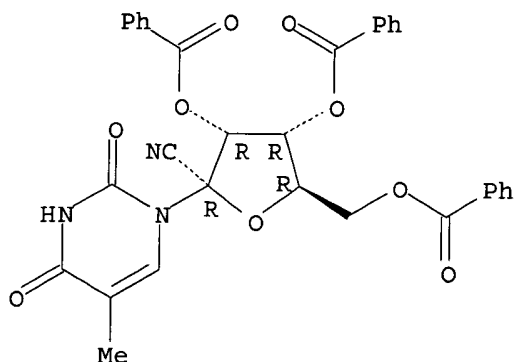
IT 152039-42-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of 1-(1'-cyano-2',3',5'-tri-O-benzoyl-.beta.-D-ribofuranosyl)thymine by ultrasound promotion)

RN 152039-42-4 CAPLUS

CN Uridine, 1'-C-cyano-5-methyl-, 2',3',5'-tribenzoate (9CI) (CA INDEX NAME)

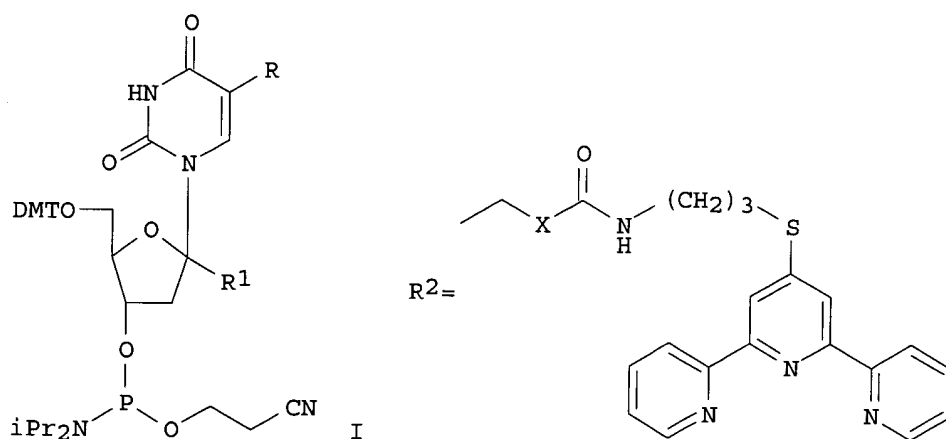
Absolute stereochemistry.



L3 ANSWER 35 OF 201 CAPLUS COPYRIGHT 2003 ACS

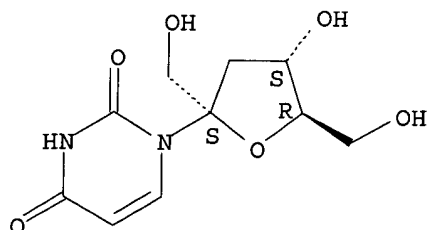
09567863

AN 1996:164299 CAPLUS
DN 124:261600
TI Building Blocks for Ribozyme Mimics: Conjugates of Terpyridine and
Bipyridine with Nucleosides
AU Bashkin, James K.; Xie, Jin; Daniher, Andrew T.; Sampath, UmaShanker; Kao,
Jeffrey L.-F.
CS Department of Chemistry, Washington University, St. Louis, MO, 63130-4899,
USA
SO Journal of Organic Chemistry (1996), 61(7), 2314-21
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
GI



- AB The synthesis and characterization of four modified nucleoside phosphoramidite reagents, e.g. I [R = R2, R1 = H, X = CH2 (II); R = H, R1 = R2, X = O (III)] are reported. These modified nucleosides are building blocks for ribozyme mimics. They are designed to deliver hydrolytically active metal complexes across either the major groove II or the minor groove III of an RNA/DNA duplex.
- IT 55697-37-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of terpyridine and bipyridine nucleoside phosphoramidites as building blocks for ribozyme mimics)
- RN 55697-37-5 CAPLUS
- CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



09567863

IT 175355-17-6P 175355-18-7P 175355-20-1P

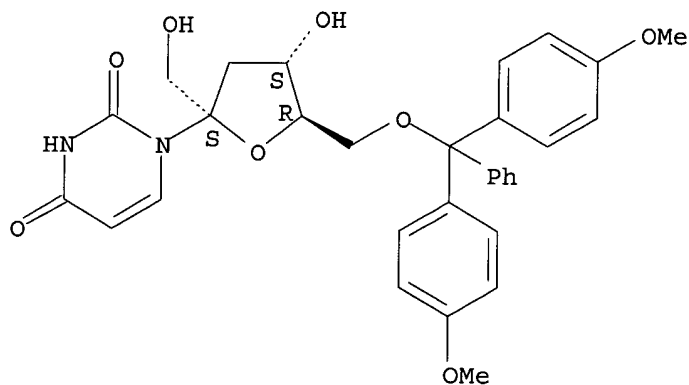
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of terpyridine and bipyridine nucleoside phosphoramidites as building blocks for ribozyme mimics)

RN 175355-17-6 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

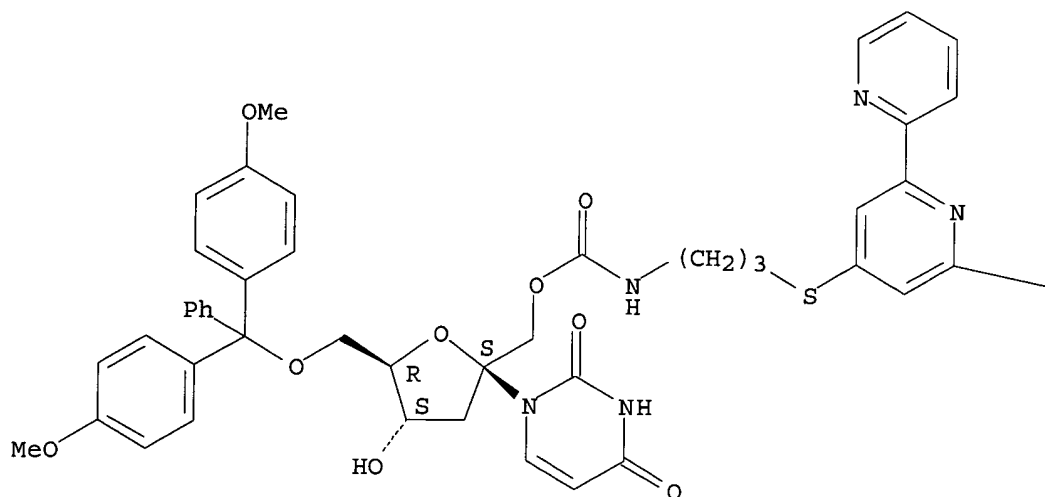


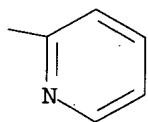
RN 175355-18-7 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[[[3-([2,2':6',2''-terpyridin]-4'-ylthio)propyl]amino]carbonyloxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



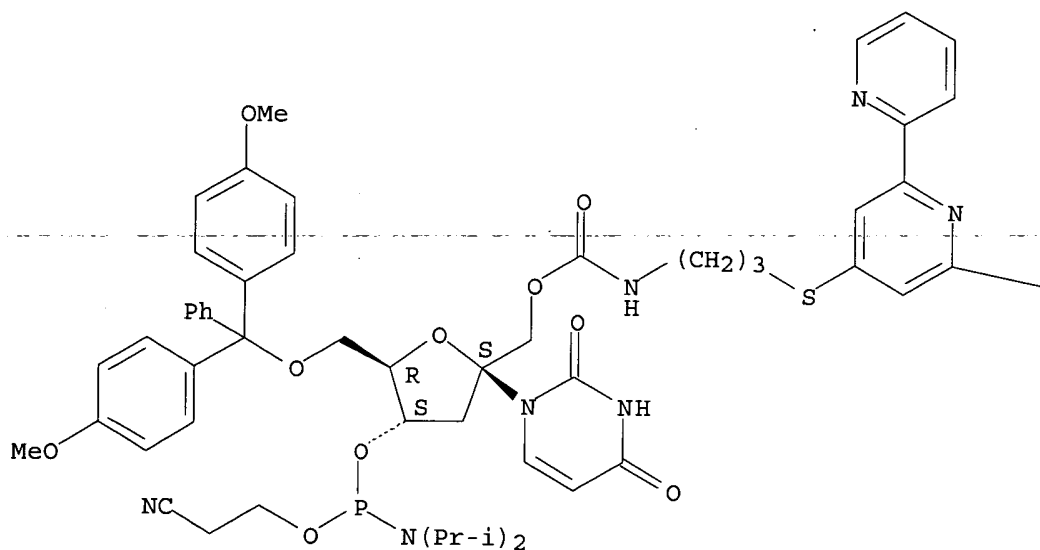


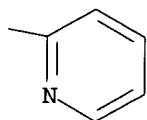
RN 175355-20-1 CAPLUS

CN Uridine, 5'-O- [bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[[[[[3-
([2,2':6',2''-terpyridin]-4'-ylthio)propyl]amino]carbonyl]oxy]methyl]-,
3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





IT 175355-19-8P

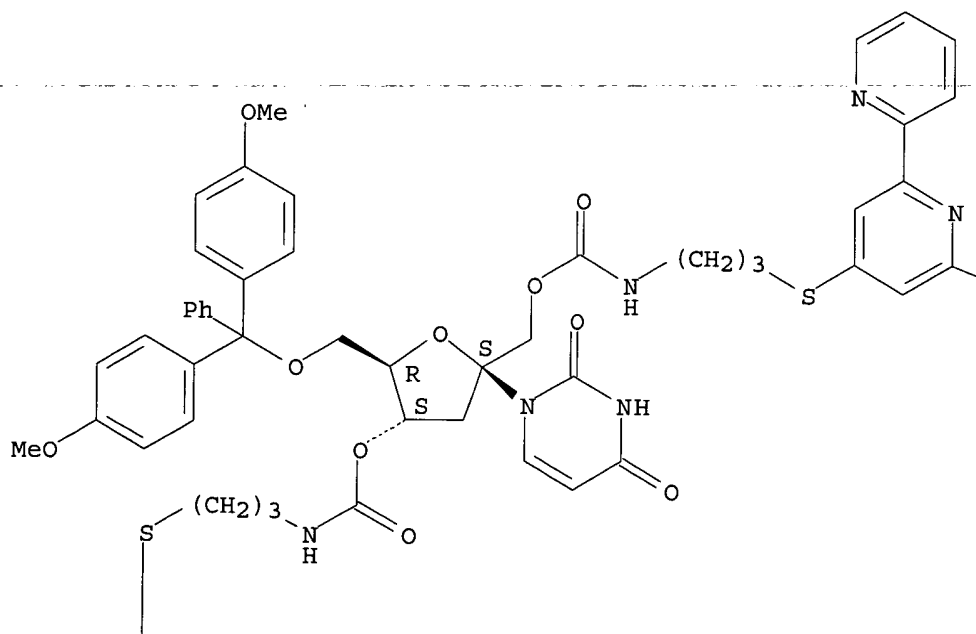
RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis of terpyridine and bipyridine nucleoside phosphoramidites as
 building blocks for ribozyme mimics)

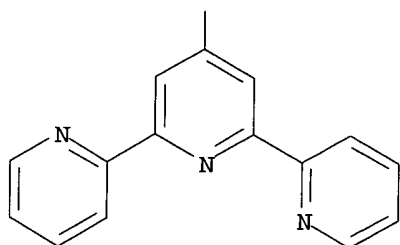
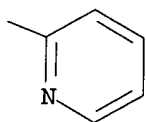
RN 175355-19-8 CAPLUS

CN Uridine, 5'-O- [bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[[[3-
 ([2,2':6',2''-terpyridin]-4'-ylthio)propyl]amino]carbonyl]oxy]methyl]-,
 3'-[[3-([2,2':6',2''-terpyridin]-4'-ylthio)propyl]carbamate] (9CI) (CA
 INDEX NAME)

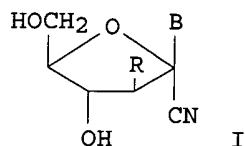
Absolute stereochemistry.

PAGE 1-A





L3 ANSWER 36 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1996:109074 CAPLUS
 DN 124:290141
 TI Synthesis and biological evaluation of 1'-C-cyano-pyrimidine nucleosides
 AU Yoshimura, Yuichi; Kano, Fumitaka; Miyazaki, Shuichi; Ashida, Noriyuki;
 Sakata, Shinji
 CS Research & Development Division, Yamasa Corporation, Chiba, 288, Japan
 SO Nucleosides & Nucleotides (1996), 15(1-3), 305-24
 CODEN: NUNUD5; ISSN: 0732-8311
 PB Dekker
 DT Journal
 LA English
 GI



AB Title compds. I [B = uracilyl, cytidyl, 5-iodouracilyl, thymidyl, R = H, Br; B = cytidyl, R = OH] were synthesized from O2,2'-cyclouridine. Incorporation of the cyano group at the anomeric position was achieved by treatment of 1',2'-unsatd. uridine with NBS in the presence of pivalic acid followed by Me3SiCN and stannic chloride. I [B = cytidyl, R1 = H,

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Br, OH] have antineoplastic and I [B = cytidyl, thymidyl, R1 = H] have antiviral activity.

IT 153959-84-3P 167023-08-7P 175471-23-5P
175471-24-6P 175471-28-0P 175471-30-4P
175471-33-7P 175471-35-9P

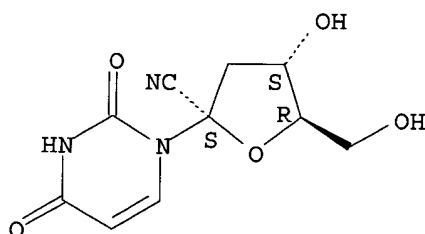
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. and virucidal and antitumor activity of 1'-C-cyano-pyrimidine nucleosides)

RN 153959-84-3 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)- (9CI) (CA INDEX NAME)

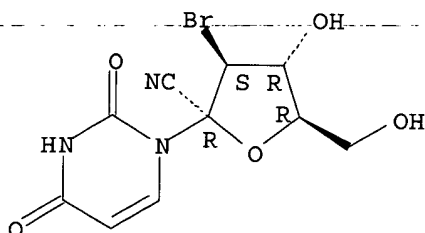
Absolute stereochemistry.



RN 167023-08-7 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)- (9CI) (CA INDEX NAME)

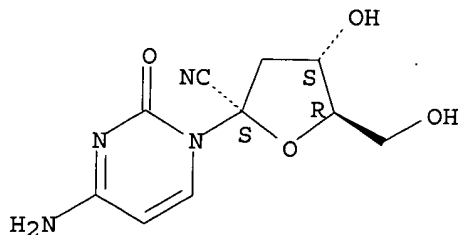
Absolute stereochemistry.



RN 175471-23-5 CAPLUS

CN Cytidine, 1'-C-cyano-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 175471-24-6 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-(4-amino-2-oxo-1(2H)-

pyrimidinyl)-3-bromo-2,3-dideoxy- (9CI) (CA INDEX NAME)

CN Uridine, 1'-C-cyano-2'-deoxy-5-iodo- (9CI) (CA INDEX NAME)

CN Thymidine, 1'-C-cyano- (9CI) (CA INDEX NAME)

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-(4-amino-2-oxo-1(2H)-pyrimidinyl)-2-deoxy- (9CI) (CA INDEX NAME)

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and virucidal and antitumor activity of 1'-C-cyano-pyrimidine nucleosides)

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and virucidal and antitumor activity of 1'-C-cyano-pyrimidine

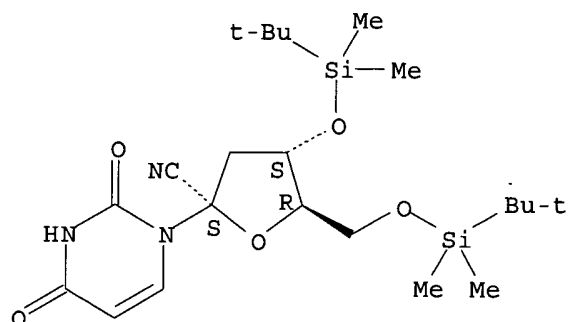
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nucleosides)

RN 167023-13-4 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

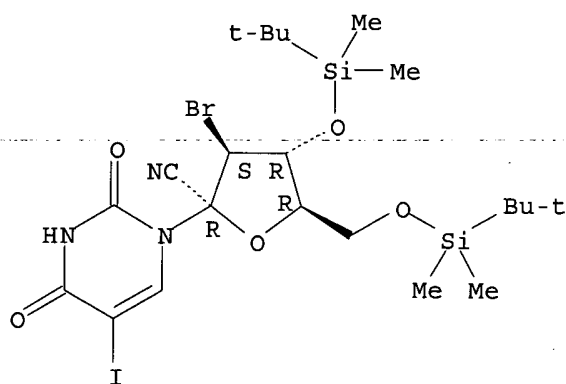
Absolute stereochemistry.



RN 167023-14-5 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-5-iodo-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

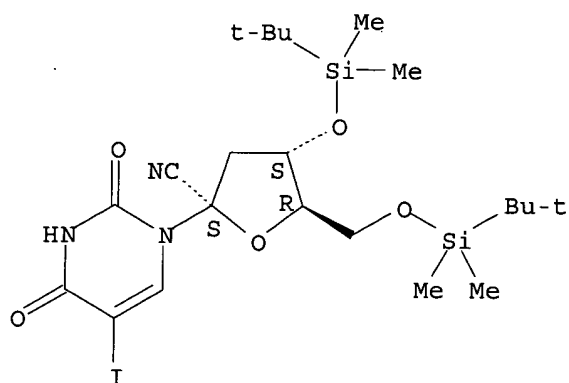


RN 167023-15-6 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-5-iodo-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

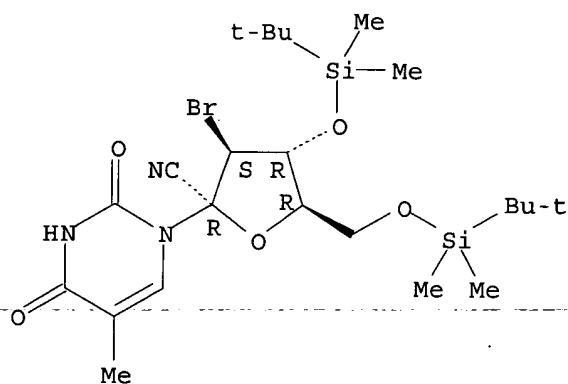
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RN 167023-16-7 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

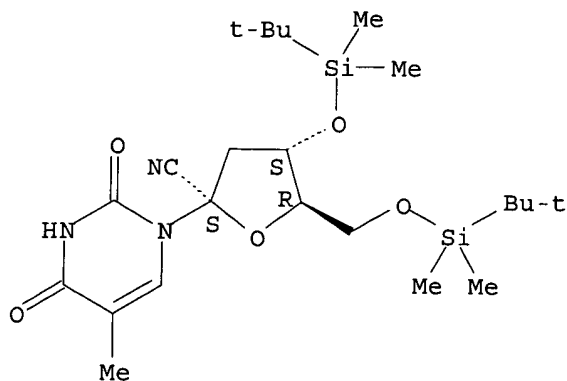
Absolute stereochemistry.



RN 167023-17-8 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

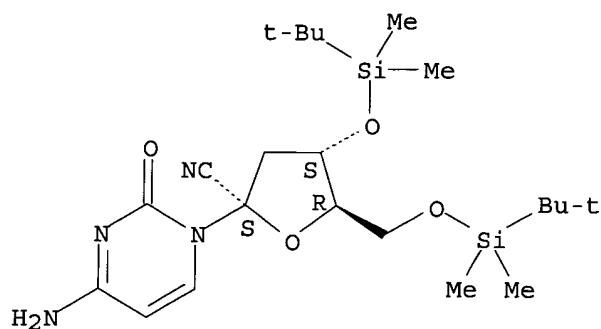


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RN 167023-19-0 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2-(4-amino-2-oxo-1(2H)-pyrimidinyl)-2,3-dideoxy-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-(9CI) (CA INDEX NAME)

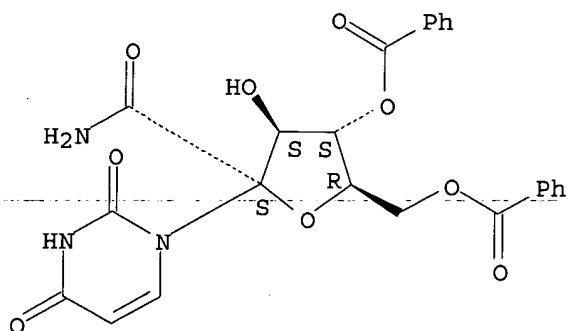
Absolute stereochemistry.



RN 167023-20-3 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosonamide, 2-deoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, 4,6-dibenzoate (9CI) (CA INDEX NAME)

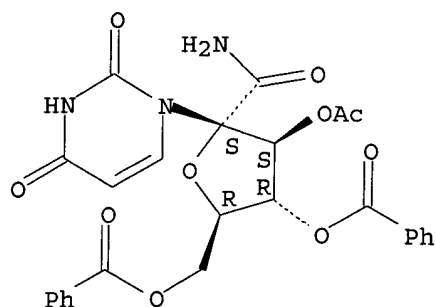
Absolute stereochemistry.



RN 167023-22-5 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosonamide, 2-deoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, 4,6-dibenzoate 3-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



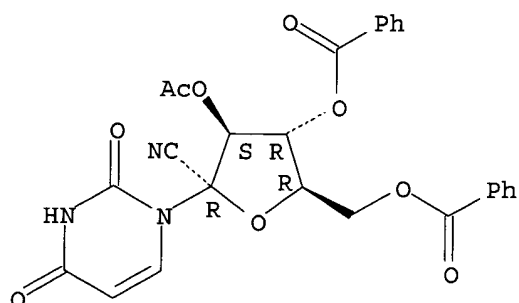
RN 167023-23-6 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-deoxy-2-(3,4-dihydro-2,4-

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dioxo-1(2H)-pyrimidinyl)-, 4,6-dibenzoate 3-acetate (9CI) (CA INDEX NAME)

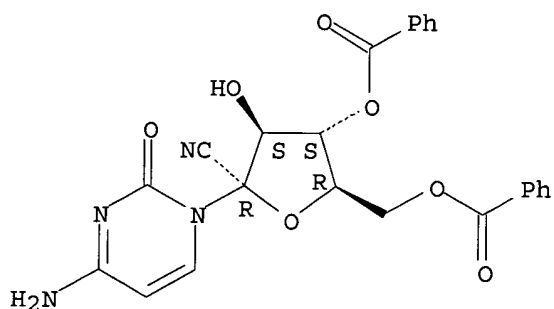
Absolute stereochemistry.



RN 167023-24-7 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-(4-amino-2-oxo-1(2H)-pyrimidinyl)-2-deoxy-, 4,6-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



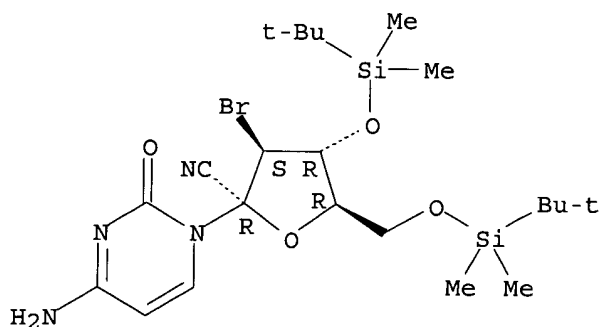
IT 167023-18-9P 175471-25-7P 175471-26-8P
175471-27-9P 175471-29-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and virucidal and antitumor activity of 1'-C-cyano-pyrimidine nucleosides)

RN 167023-18-9 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-(4-amino-2-oxo-1(2H)-pyrimidinyl)-3-bromo-2,3-dideoxy-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

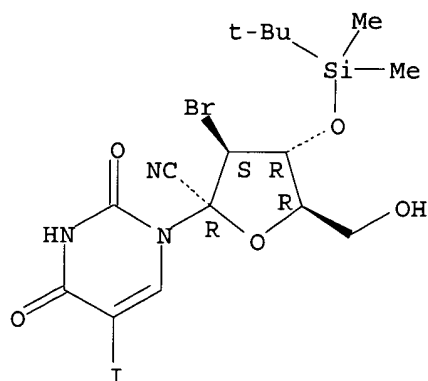


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RN 175471-25-7 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-5-iodo-2,4-dioxo-1(2H)-pyrimidinyl)-4-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

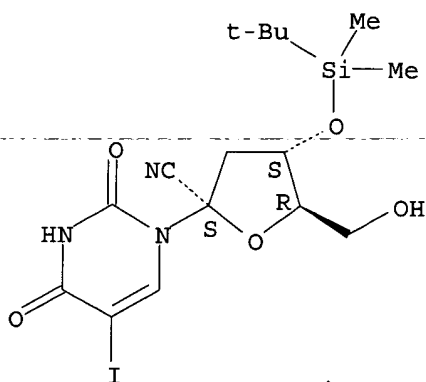
Absolute stereochemistry.



RN 175471-26-8 CAPLUS

CN Uridine, 1'-C-cyano-2'-deoxy-3'-O-[(1,1-dimethylethyl)dimethylsilyl]-5-iodo- (9CI) (CA INDEX NAME)

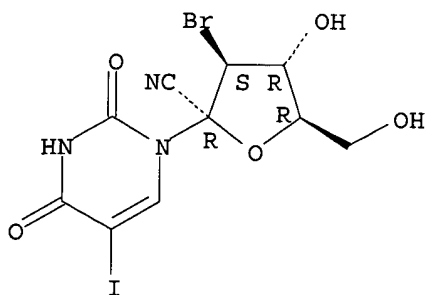
Absolute stereochemistry.



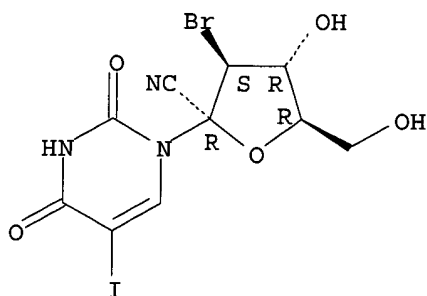
RN 175471-27-9 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-5-iodo-2,4-dioxo-1(2H)-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

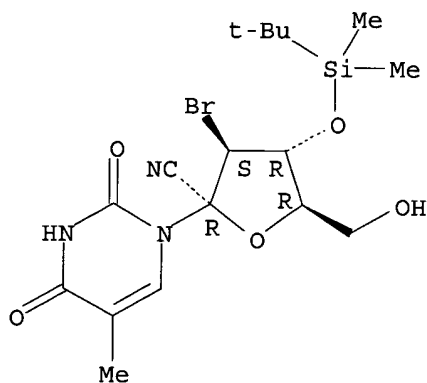


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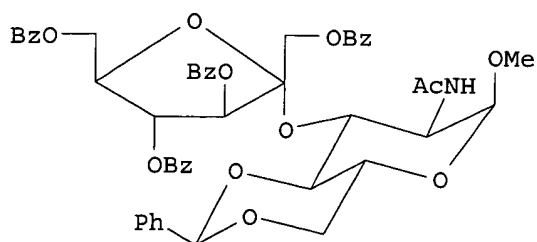


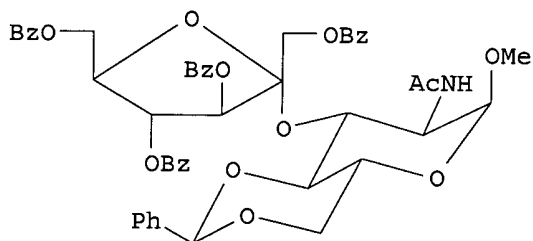
RN 175471-29-1 CAPLUS
CN .beta.-D-arabino-2-Hexulofuranosonitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-4-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 37 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1996:84635 CAPLUS
DN 124:261500
TI Synthesis of D-Fructofuranosides Using Thio Glycosides as Glycosyl Donors
AU Krog-Jensen, Christian; Oscarson, Stefan
CS Department of Organic Chemistry, Stockholm University, Stockholm, S-106 91, Swed.
SO Journal of Organic Chemistry (1996), 61(4), 1234-8
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 124:261500
GI





I

AB Benzylated and benzoylated Et thio glycosides of D-fructofuranose have been synthesized and tested as glycosyl donors in couplings to various primary and secondary carbohydrate acceptors. Treatment of 2-O-acetyl-1,3,4,6-tetra-O-benzoyl-D-fructofuranose with Et mercaptan in a $\text{BF}_3 \cdot \text{OEt}_2$ -promoted reaction gave the benzoylated Et 2-thio- α , β -D-fructofuranosides, which after deacylation and benzylation afforded the benzylated derivs. These thiofructofuranosides, using dimethyl(methylthio)sulfonium triflate (DMTST) or N-iodosuccinimide as promoter, were excellent donors, which gave disaccharide coupling products, e.g. I, in quant. or almost quant. yields with all tested acceptors, yields rarely found in oligosaccharide synthesis. The benzoylated donors gave only α -linked fructofuranosides, due to participation of the 3-O-benzoyl group, whereas the benzylated donors gave α ./ β -mixts.

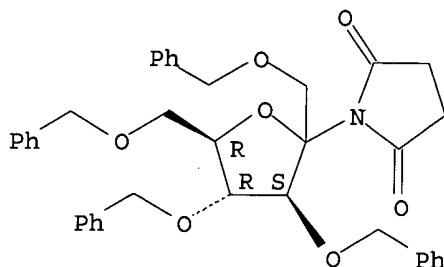
IT 174741-78-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of fructofuranoside disaccharides using
thiofructofuranosides as glycosyl donors)

RN 174741-78-7 CAPLUS

CN 2,5-Pyrrolidinedione, 1-[1,3,4,6-tetrakis-O-(phenylmethyl)-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

-----Absolute stereochemistry.



L3 ANSWER 38 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1996:34711 CAPLUS

DN 124:146717

TI Independent Generation and Reactivity of 2'-Deoxyurid-1'-yl

AU Goodman, Brian K.; Greenberg, Marc M.

CS Department of Chemistry, Colorado State University, Fort Collins, CO, 80523, USA

SO Journal of Organic Chemistry (1996), 61(1), 2-3

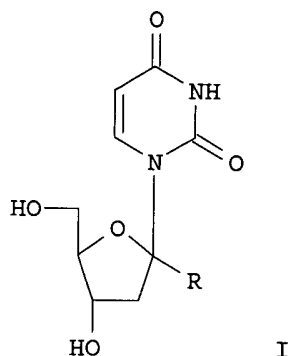
CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

GI



AB 2'-Deoxyurid-1'-yl I (R = radical) (II) and the analogous radical of other nucleosides is produced in nucleic acids via a variety of oxidative stress mechanisms. The first independent generation of this reactive intermediates is reported. II is generated from a t-Bu ketone I (R = COCMe₃) via Norrish type I photo-cleavage. Trapping expts. are carried out under aerobic and anaerobic conditions, with and without exogenous hydrogen atom donors. Trapping by O₂ results in the formation of uracil and 2'-deoxyribonolactone in equal amts. Trapping of II by a hydrogen atom donor yields 2'-deoxyurine as a mixt. of epimers. Competition studies between O₂ and .beta.-mercaptoethanol indicate that II reacts with the thiol with a rate const. of 3.7 .times. 10⁶ M⁻¹ s⁻¹. This reaction is fast enough to compete with trapping by O₂, indicating that .alpha.-nucleoside formation is a biol. relevant issue in vivo.

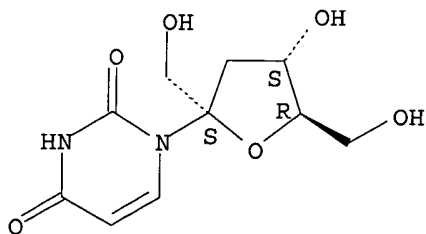
IT 55697-37-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(formation and reactivity of deoxyuridyl radical)

RN 55697-37-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



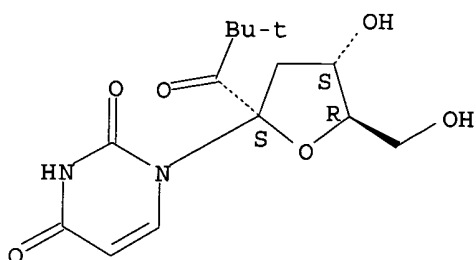
IT 173349-24-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(formation and reactivity of deoxyuridyl radical)

RN 173349-24-1 CAPLUS

CN Uridine, 2'-deoxy-1'-C-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 39 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1995:761660 CAPLUS
 DN 123:199305
 TI Preparation of 1'-C-substituted pyrimidine nucleosides and
 2,2'-anhydronucleosides as antitumor agents
 IN Haraguchi, Kazuhiro; Tanaka, Hiromichi; Myasaka, Sada; Yoshimura, Juichi;
 Kano, Fumitaka
 PA Yamasa Shoyu Kk, Japan
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07109289	A2	19950425	JP 1994-215293	19940817
PRAI	JP 1993-225167		19930818		
OS	CASREACT 123:199305; MARPAT 123:199305				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB 1'-C-substituted pyrimidine nucleosides (I; R1 = H, halo, lower alkyl; R2 = lower alkyl, allyl, 2-arylallyl, alkynyl, acylmethyl, cycloalkanon-2-yl, cyano, CONH2; R3 = halo, H, OH, acyloxy; R4 = H, HO-protecting group; R6 = OH, NH2) and 1'-C-substituted pyrimidine 2,2'-nucleosides (II; R1, R2, R4 = same as above), which have biol. activities such as antitumor activity (no data), are prepd. by reacting 1',2'-didehydro-2'-deoxy-pyrimidine nucleosides (III; R1 = H, halo, lower alkyl; Z = silyl HO-protecting group) with an org. acid and a halogenating agent for acyloxylation and halogenation and reacting the resulting 1'-acyloxy pyrimidine nucleosides (IV; R1, Z = same as above; R3 = halo, H, OH, acyloxy; R5 = acyloxy) with an organometallic compd. to introduce a 1'-C substituent on the sugar moiety followed by optional removing HO-protecting group of the sugar HO groups or substituting with other protecting groups or amination at the 4-position of the base to give I. I are converted into II by treatment with a desilylating agent. Thus, 3.66 mL Et3N was added to a soln. of 2.67 g pivalic acid in Et2O and stirred for 30 min, followed by successively adding 2.38 g III (R1 = H, Z = Me3SiMe2) and 1.13 g N-bromosuccinimide, and the resulting mixt. was stirred at room temp. for 30 min to give 91% IV (R1 = H, R3 = Br, R5 = O2CCMe3, Z = Me3SiMe2) (V). Allyltrimethylsilane (627.8 .mu.L) was added to a soln. of 500 mg V in CH2Cl2 and cooled to -40.degree., followed by adding 1.03 mL 1M SiCl4 soln., and the mixt. was warmed to -20.degree. over 2 h to give 65% I (R1 = H, R2 = allyl, R3 = Br, R4 = Me3SiMe2, R6 = OH), which was stirred with Bu4NF in THF at room temp. to give II (R1 = H, R2 = allyl, R4 = H) and

then acetylated by Ac₂O in pyridine to give 53.6% II (R₁ = H, R₂ = allyl, R₄ = Ac). Similar coupling of V with 1-phenylallyltrimethylsilane, Me₃SiCN, isopropenyloxytrimethylsilane, 1-(trimethylsiloxy)cyclopentene, and 1-phenyl-1-(trimethylsiloxy)ethylene in the presence of SnCl₄ gave I (R₂ = 1-phenylallyl, cyano, CH₂COMe, cyclopentanone-2-yl, and CH₂COPh; R₁ = H, R₃ = Br, R₄ = Me₃SiMe₂, R₆ = OH), resp. Alkylation of V with Me₃Al, Et₃Al, and phenylacetylene/BuLi gave I (R₂ = Me, Et, and PhC.tplbond.C; R₁ = H, R₂ = allyl, R₃ = Br, R₄ = Me₃SiMe₂, R₆ = OH), resp.

IT 153959-65-0P 153959-66-1P 153959-67-2P
 153959-68-3P 153959-70-7P 153959-84-3P
 158756-69-5P 162143-55-7P 162143-56-8P
 162143-60-4P 167023-08-7P 167023-09-8P
 167023-11-2P 167023-13-4P 167023-14-5P
 167023-15-6P 167023-16-7P 167023-17-8P
 167023-18-9P 167023-19-0P 167023-20-3P
 167023-22-5P 167023-23-6P 167023-24-7P

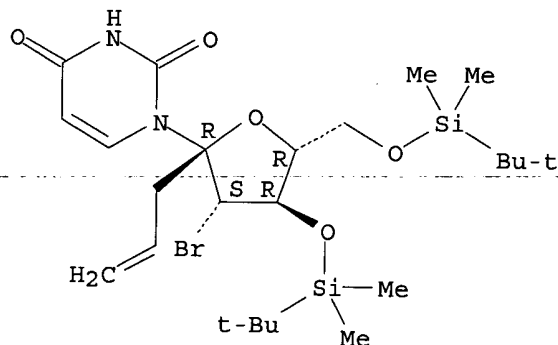
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of 1'-C-substituted pyrimidine nucleosides by acyloxylation and halogenation of didehydrodeoxy-pyrimidine nucleosides and 1'-C-substitution)

RN 153959-65-0 CAPLUS

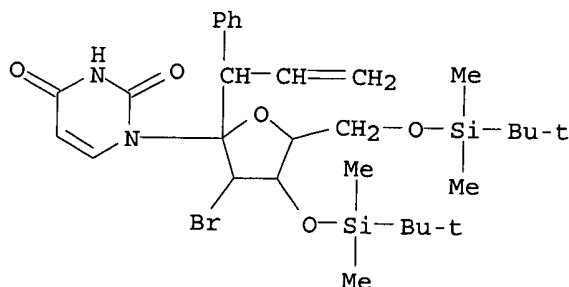
CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-1-(2-propenyl)-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 153959-66-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(1-phenyl-2-propenyl)-2-furanyl]- (9CI) (CA INDEX NAME)

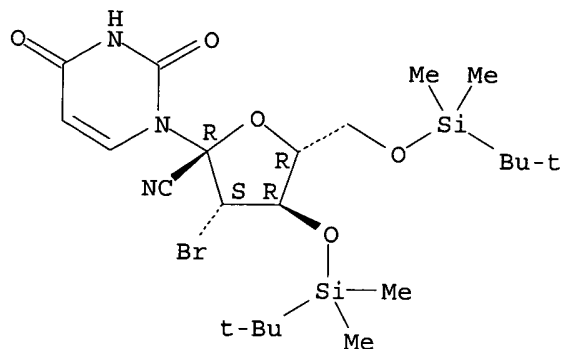


RN 153959-67-2 CAPLUS

09567863

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

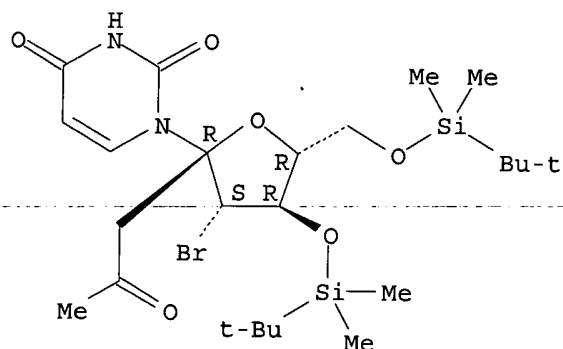
Absolute stereochemistry.



RN 153959-68-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-bromo-1,3,5-trideoxy-6,8-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-arabino-2,4-octodiulo-4,7-furanosyl]- (9CI) (CA INDEX NAME)

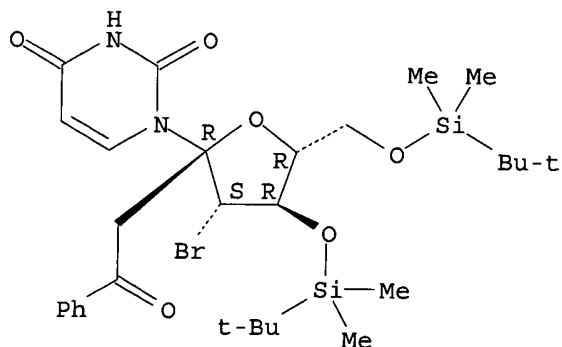
Absolute stereochemistry.



RN 153959-70-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-2,4-dideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-C-phenyl-.beta.-D-arabino-heptos-3-ulo-3,6-furanosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

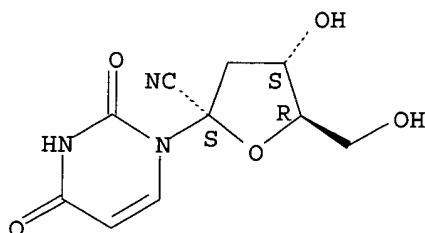


09567863

RN 153959-84-3 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-(9CI) (CA INDEX NAME)

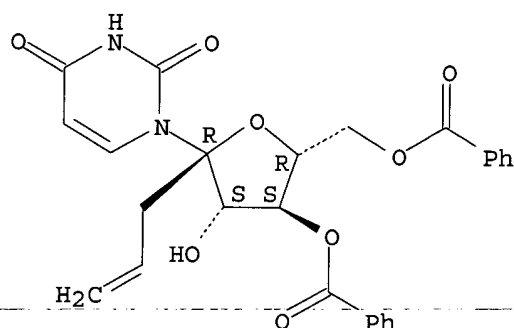
Absolute stereochemistry.



RN 158756-69-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(6,8-di-O-benzoyl-1,2,3-trideoxy-.beta.-D-arabino-oct-1-en-4-ulo-4,7-furanosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 162143-55-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-1,3-dideoxy-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-fructofuranosyl)-(9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 162143-56-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-1,2,4-trideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-arabino-3-heptulofuranosyl)-(9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 162143-60-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-1,2,4-trideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-phenyl-.beta.-D-arabino-hept-1-yn-3-ulofuranosyl)-(9CI) (CA INDEX NAME)

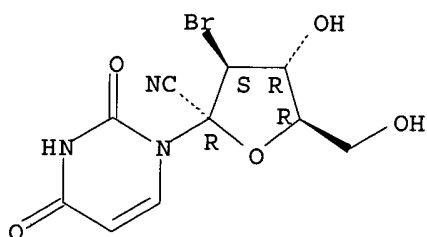
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 167023-08-7 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

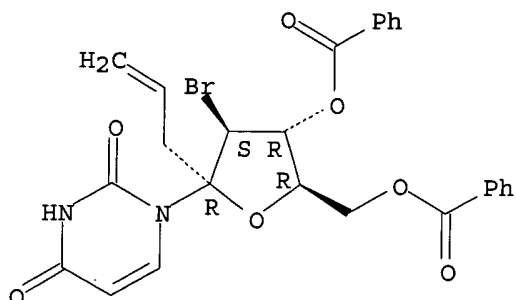
09567863



RN 167023-09-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-(benzoyloxy)-5-[(benzoyloxy)methyl]-3-bromotetrahydro-2-(2-propenyl)-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

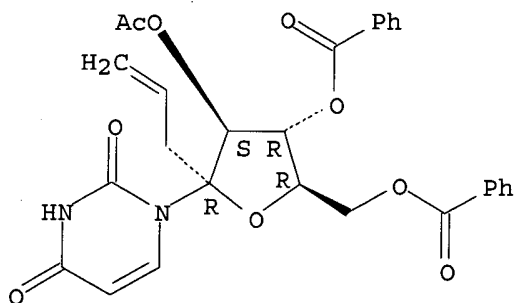
Absolute stereochemistry.



RN 167023-11-2 CAPLUS

CN .beta.-D-arabino-Oct-1-en-4-ulo-4,7-furanose, 1,2,3,4-tetradeoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, 5-acetate 6,8-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

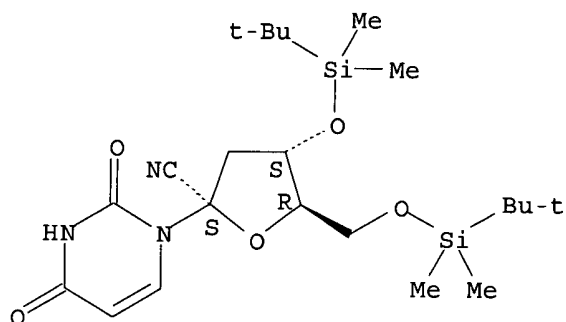


RN 167023-13-4 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

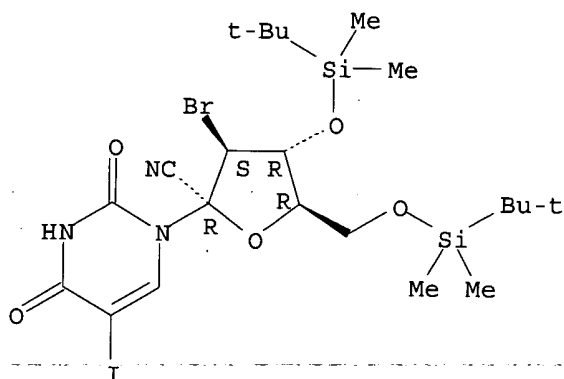
09567863



RN 167023-14-5 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-5-iodo-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

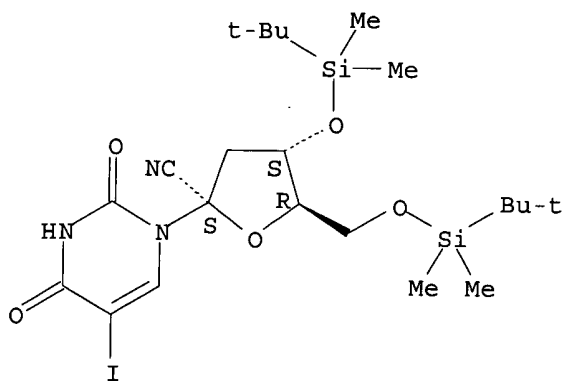
Absolute stereochemistry.



RN 167023-15-6 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-5-iodo-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



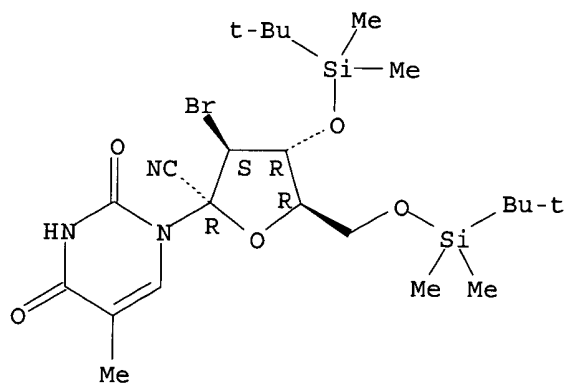
RN 167023-16-7 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-

09567863

dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

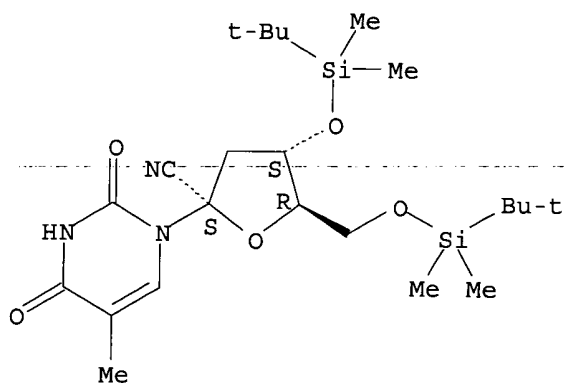
Absolute stereochemistry.



RN 167023-17-8 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2⁺-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

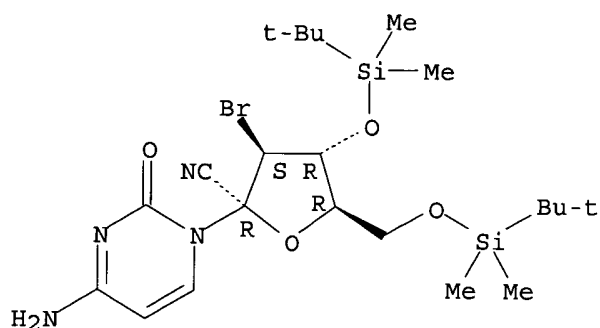


RN 167023-18-9 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-(4-amino-2-oxo-1(2H)-pyrimidinyl)-3-bromo-2,3-dideoxy-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

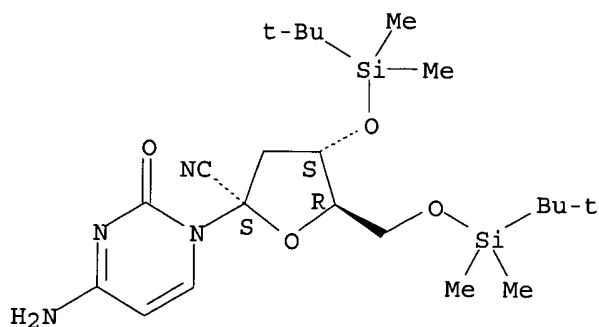
09567863



RN 167023-19-0 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosonitrile, 2-(4-amino-2-oxo-1(2H)-pyrimidinyl)-2,3-dideoxy-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

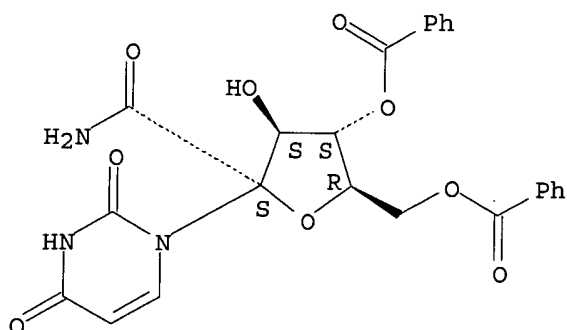
Absolute stereochemistry.



RN 167023-20-3 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosonamide, 2-deoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, 4,6-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

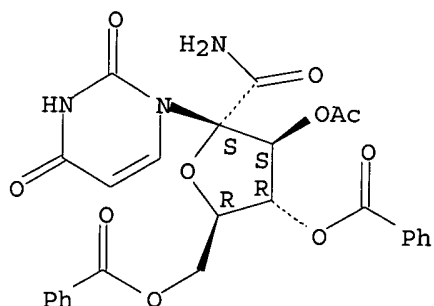


RN 167023-22-5 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosonamide, 2-deoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, 4,6-dibenzoate 3-acetate (9CI) (CA INDEX NAME)

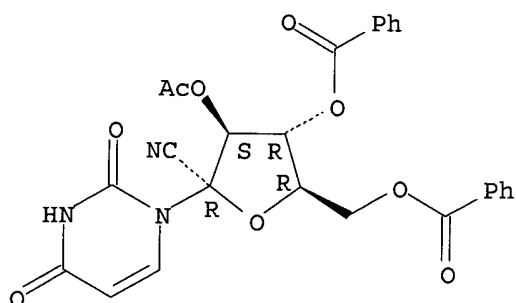
Absolute stereochemistry.

09567863



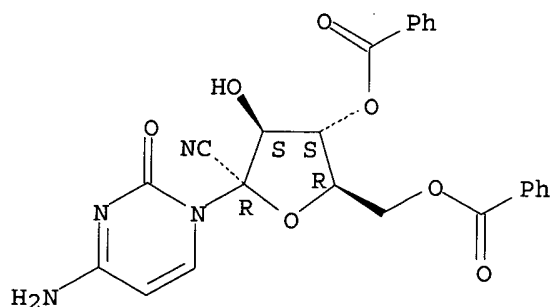
RN 167023-23-6 CAPLUS
CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-deoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, 4,6-dibenzoate 3-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 167023-24-7 CAPLUS
CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-(4-amino-2-oxo-1(2H)-pyrimidinyl)-2-deoxy-, 4,6-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



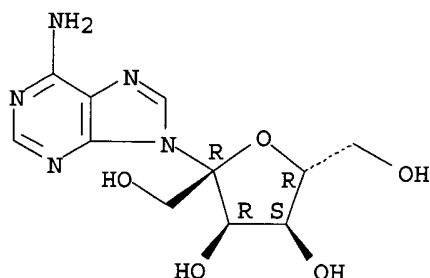
L3 ANSWER 40 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1995:680825 CAPLUS
DN 123:70225
TI Silver halide photographic material and image formation
IN Sanpei, Takeshi
PA Konishiroku Photo Ind, Japan
SO Jpn. Kokai Tokkyo Koho, 51 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

09567863

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07104426	A2	19950421	JP 1993-250708	19931006
	JP 3362291	B2	20030107		
PRAI	JP 1993-250708		19931006		
OS	MARPAT 123:70225				
AB	In the title photog. material having .gtoreq.1 Ag halide emulsion layer and/or its adjacent layer contg. a hydrazine deriv. on 1 side of a support and .gtoreq.1 hydrophilic colloid layer on the other side of the support, the hydrophilic colloid layer contains a .gtoreq.1 nucleating accelerator. Image formation is also claimed. The photog. material is stable and free of fog and black spots.				
IT	1874-54-0				
RL:	DEV (Device component use); USES (Uses) (contained in photog. material free of fog and black spot)				
RN	1874-54-0	CAPLUS			
CN	9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



L3 ANSWER 41 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1995:631009 CAPLUS

DN 123:257215

TI Stereoselective synthesis of 1'-C-branched uracil nucleosides from uridine

AU Haraguchi, Kazuhiro; Itoh, Yoshiharu; Tanaka, Hiromichi; Miyasaka, Tadashi

CS School Pharmaceutical Sciences, Showa University, Tokyo, 142, Japan

SO Nucleosides & Nucleotides (1995), 14(3-5), 417-20

CODEN: NUNUD5; ISSN: 0732-8311

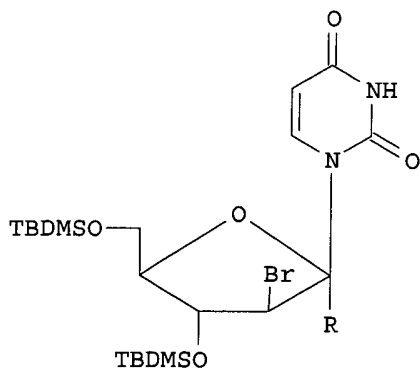
PB Dekker

DT Journal

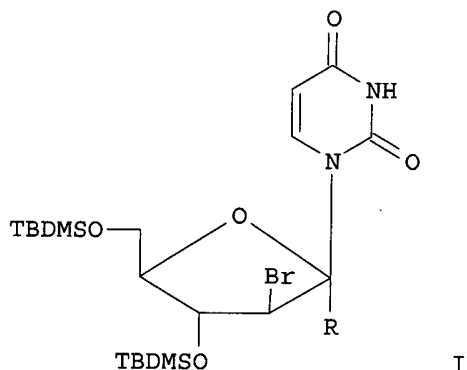
LA English

OS CASREACT 123:257215

GI

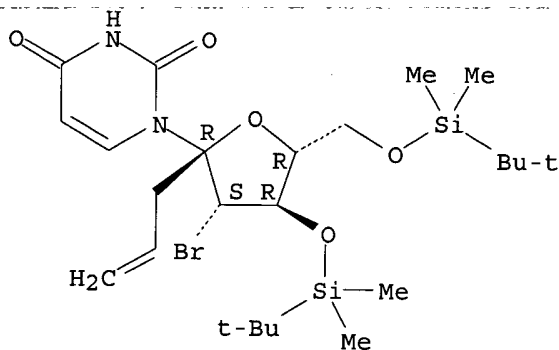


I



- AB Stereoselective electrophilic addn. (bromo-pivaloyloxylation) to 1-[3,5-bis-O-(tert-butyldimethylsilyl)-2-deoxy-D-erythro-pent-1-enofuranosyl]uracil gave the corresponding nucleosides, e.g. I (R = OPiv), when combined with nucleophilic substitution using organo-silicon or organo-aluminum reagents, provides a new and highly divergent C-C bond forming method at the anomeric position to give I (R = CH₂CH=CH₂).
- IT **153959-65-0P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (stereoselective synthesis of branched uracil nucleosides from uridine)
- RN 153959-65-0 CAPLUS
- CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-1-(2-propenyl)-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

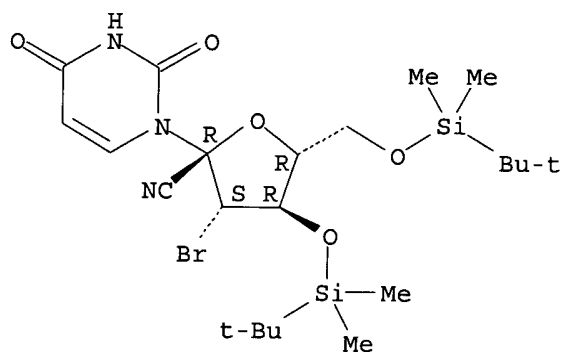
Absolute stereochemistry.



- IT **153959-67-2P 153959-68-3P 153959-70-7P**
162143-55-7P 162143-56-8P 162143-57-9P
162143-60-4P 162143-61-5P 162143-62-6P
162240-60-0P 162240-61-1P 167023-09-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (stereoselective synthesis of branched uracil nucleosides from uridine)
- RN 153959-67-2 CAPLUS
- CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

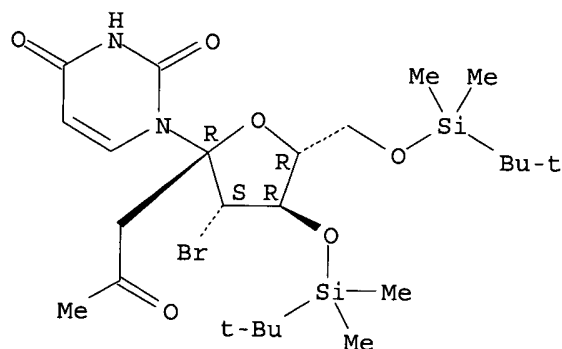
09567863



RN 153959-68-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-bromo-1,3,5-trideoxy-6,8-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-arabino-2,4-octodiulo-4,7-furanosyl]-(9CI) (CA INDEX NAME)

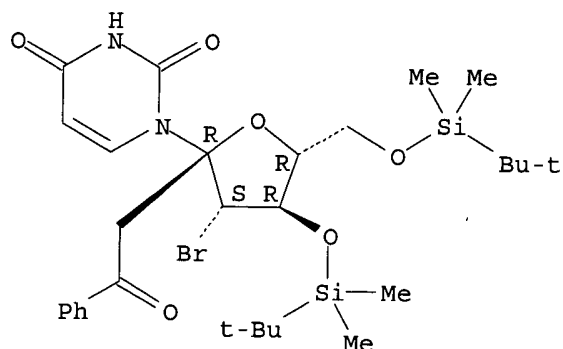
Absolute stereochemistry.



RN 153959-70-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-2,4-dideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-C-phenyl-.beta.-D-arabino-heptos-3-ulo-3,6-furanosyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 162143-55-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-1,3-dideoxy-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-fructofuranosyl]-(9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

09567863

RN 162143-56-8 CAPLUS

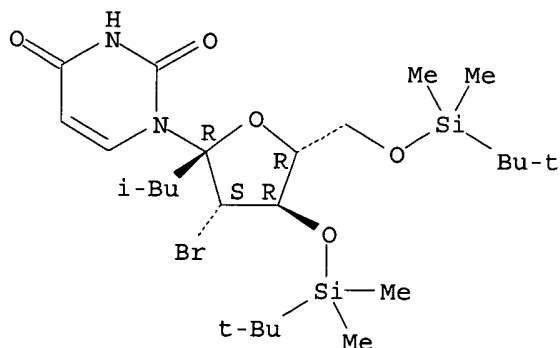
CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-1,2,4-trideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-arabino-3-heptulofuranosyl]- (9CI)
(CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 162143-57-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(2-methylpropyl)-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 162143-60-4 CAPLUS

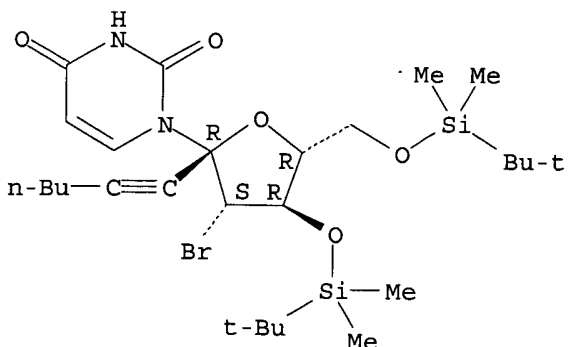
CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-1,2,4-trideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-phenyl-.beta.-D-arabino-hept-1-yn-3-ulofuranosyl]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 162143-61-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-2-(1-hexynyl)tetrahydro-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 162143-62-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-1,2,4-trideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-(trimethylsilyl)-.beta.-D-arabino-hept-1-yn-3-ulofuranosyl]- (9CI) (CA INDEX NAME)

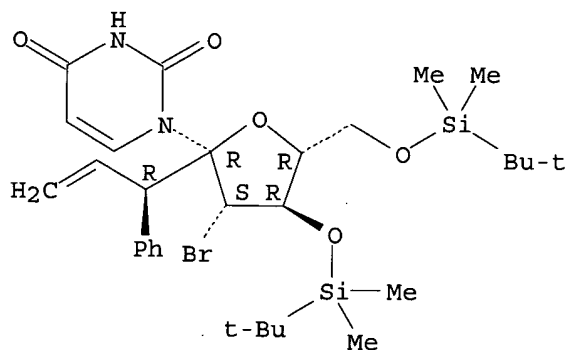
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

09567863

RN 162240-60-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(1-phenyl-2-propenyl)-2-furanyl]-, [2R-[2.alpha.,2(R*),3.alpha.,4.beta.,5.alpha.]]- (9CI) (CA INDEX NAME)

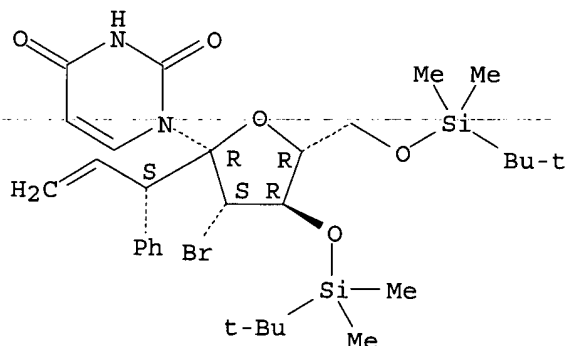
Absolute stereochemistry.



RN 162240-61-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(1-phenyl-2-propenyl)-2-furanyl]-, [2R-[2.alpha.,2(S*),3.alpha.,4.beta.,5.alpha.]]- (9CI) (CA INDEX NAME)

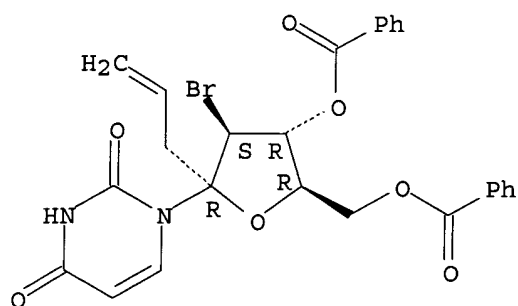
Absolute stereochemistry.



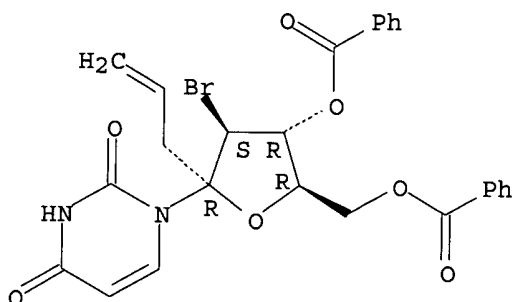
RN 167023-09-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-(benzoyloxy)-5-[(benzoyloxy)methyl]-3-bromotetrahydro-2-(2-propenyl)-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

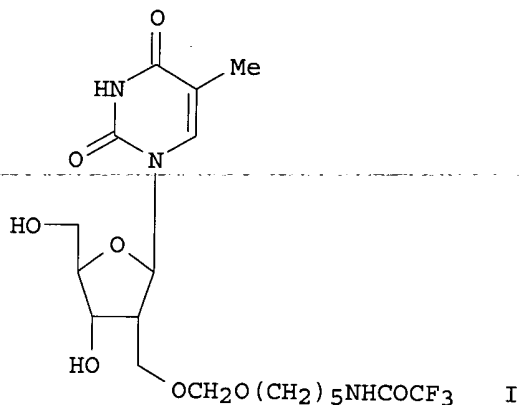
Absolute stereochemistry.



09567863



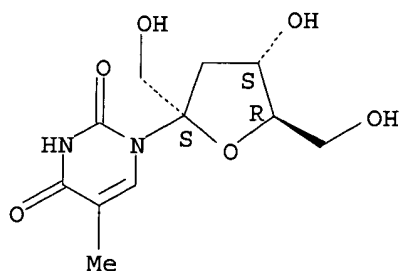
L3 ANSWER 42 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1995:630985 CAPLUS
DN 123:257203
TI Synthesis of analogs of 3'-deoxypsicothymidine
AU Hovinen, Jari; Azhayev, Alex; Guzaev, Andrei; Loennberg, Harri
CS Department Chemistry, University Turku, Turku, FIN-20500, Finland
SO Nucleosides & Nucleotides (1995), 14(3-5), 329-32
CODEN: NUNUD5; ISSN: 0732-8311
PB Dekker
DT Journal
LA English
GI



AB Prepn. of 3'-deoxypsicothymidines, e.g. I, bearing a tether group at O1' is described. Selective protection of the primary hydroxy functions of the starting nucleoside is briefly discussed.
IT 153184-84-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of analogs of deoxypsicothymidine)
RN 153184-84-0 CAPLUS
CN Thymidine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



IT 168639-96-1P 168639-97-2P 168639-98-3P

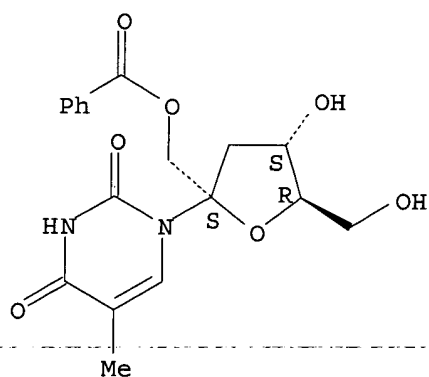
168640-00-4P 168640-01-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(synthesis of analogs of deoxypsicothymidine)

RN 168639-96-1 CAPLUS

CN Thymidine, 1'-C-[(benzyloxy)methyl]- (9CI) (CA INDEX NAME)

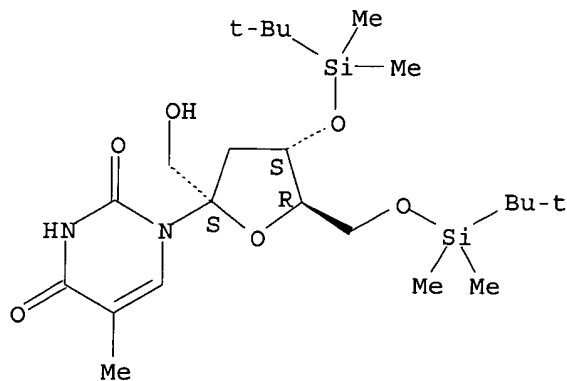
Absolute stereochemistry.



RN 168639-97-2 CAPLUS

CN Thymidine, 3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1'-C-
(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

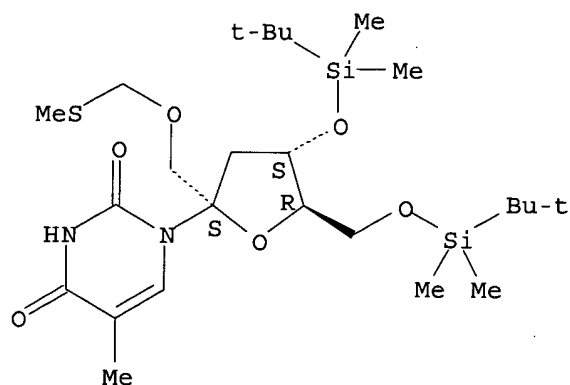


RN 168639-98-3 CAPLUS

CN Thymidine, 3',5'-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1'-C-
[[methylthio)methoxy)methyl]- (9CI) (CA INDEX NAME)

09567863

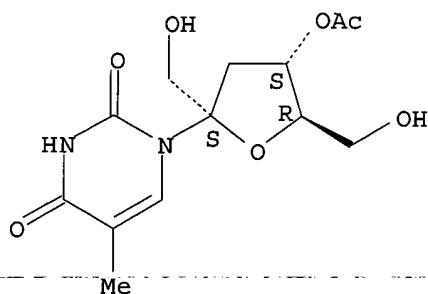
Absolute stereochemistry.



RN 168640-00-4 CAPLUS

CN Thymidine, 1'-C-(hydroxymethyl)-, 3'-acetate (9CI) (CA INDEX NAME)

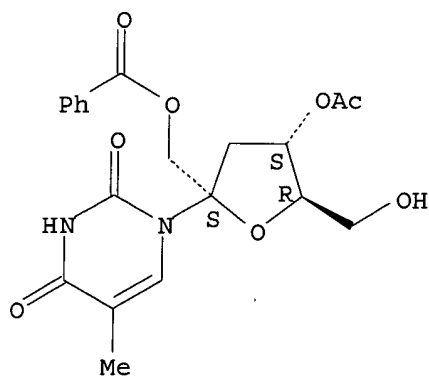
Absolute stereochemistry.



RN 168640-01-5 CAPLUS

CN Thymidine, 1'-C-[(benzoyloxy)methyl]-, 3'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 153184-85-1P 153184-86-2P 168639-95-0P

168639-99-4P 168640-02-6P

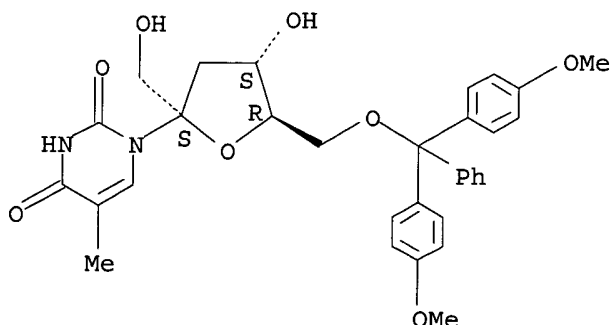
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of analogs of deoxypsicothymidine)

RN 153184-85-1 CAPLUS

09567863

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-(hydroxymethyl)-
(9CI) (CA INDEX NAME)

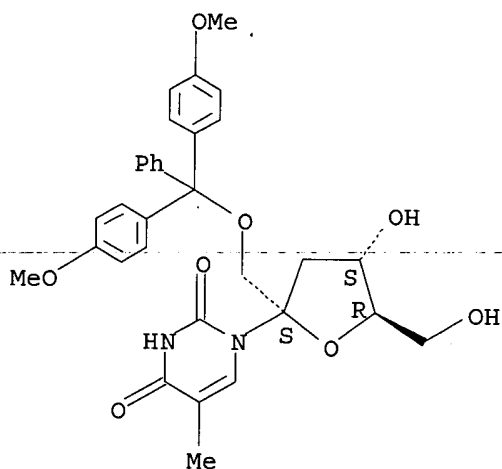
Absolute stereochemistry.



RN 153184-86-2 CAPLUS

CN Thymidine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]- (9CI) (CA INDEX NAME)

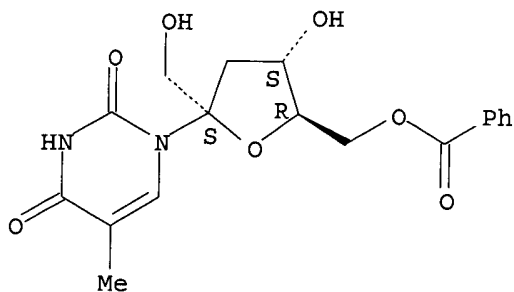
Absolute stereochemistry.



RN 168639-95-0 CAPLUS

CN Thymidine, 1'-C-(hydroxymethyl)-, 5'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

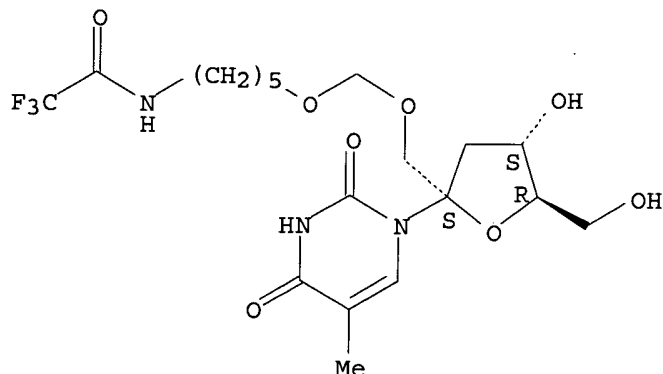


09567863

RN 168639-99-4 CAPLUS

CN Thymidine, 1'-C-[[[5-[(trifluoroacetyl)amino]pentyl]oxy]methoxy]methyl] - (9CI) (CA INDEX NAME)

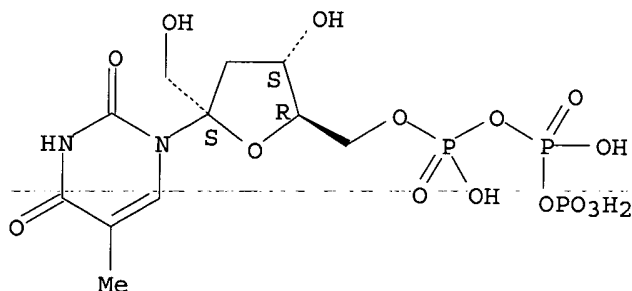
Absolute stereochemistry.



RN 168640-02-6 CAPLUS

CN Thymidine 5'-(tetrahydrogen triphosphate), 1'-C-(hydroxymethyl) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 43 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1995:609486 CAPLUS

DN 123:314373

TI Radical-initiated 1,2-acyloxy migration which generates a nucleoside anomeric radical

AU Itoh, Yoshiharu; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Matsumoto, Kouichiro; Nakamura, Kazuo T.; Miyasaka, Tadashi

CS Sch. Pharm. Sci., Showa Univ., Tokyo, 142, Japan

SO Tetrahedron Letters (1995), 36(22), 3867-70

CODEN: TELEAY; ISSN: 0040-4039

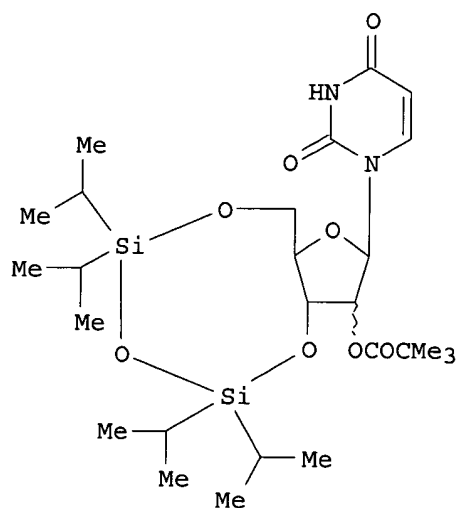
PB Elsevier

DT Journal

LA English

OS CASREACT 123:314373

GI



I

AB Face-selectivity of bromo-pivaloyloxylation to 1',2'-unsatd. uridine can be altered by changing the 3',5'-O-protecting group. The resulting 2'-bromo-1'-pivaloyloxyated adduct, upon being reacted under radical conditions, undergoes 1,2-acyloxy migration to generate a nucleoside anomeric radical which was allowed to react with Bu₃SnH or allyltributyltin to give the corresponding nucleosides, e.g. I. Factors governing stereochem. and efficacy of this migration are also discussed.

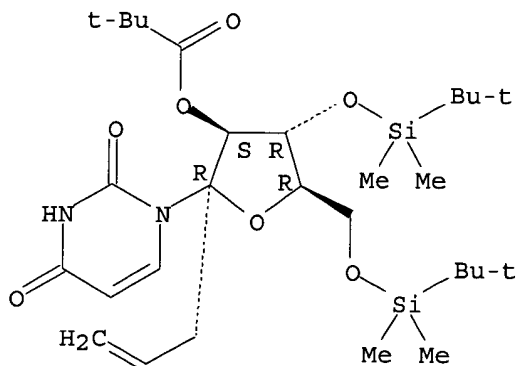
IT 170033-93-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(radical-initiated acyloxy migration which generates a nucleoside anomeric radical)

RN 170033-93-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,2,3-trideoxy-6,8-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-5-O-(2,2-dimethyl-1-oxopropyl)-.beta.-D-arabino-oct-1-en-4-ulo-4,7-furanosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 44 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1995:563174 CAPLUS

DN 123:340613

TI Looped oligonucleotides form stable hybrid complexes with a single-stranded DNA

AU Azhayeva, Elena; Azhayev, Alex; Guzaev, Andrei; Hovinen, Jari; Loonnberg, Harri

09567863

CS Dep. Chem., Univ. Turku, Turku, FIN-20500, Finland

SO Nucleic Acids Research (1995), 23(7), 1170-6

CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

DT Journal

LA English

AB Several new branched, circular, and looped oligonucleotides were synthesized. 3'-Deoxyψicothymidine was employed to create the site of branching when required. The circular and looped structures were obtained by oxidative disulfide bond formation between mercaptoalkyl tether groups. All the oligonucleotides prep'd. contained two T11 sequences, and the branched and looped oligomers an addnl. alternating CT sequence. Melting expts. revealed that the branched oligonucleotides form relatively weak hybrid (double/triple helix) complexes with the single-stranded oligodeoxyribonucleotide, showing a considerable destabilizing effect produced by the structure at the point of branching. The data obtained with looped oligonucleotides demonstrated considerable stabilization of the hybrid (double/triple helix) complexes with the complement. The data reported may be useful in attempting to design new antisense or antigene oligonucleotides capable of forming selective and stable bimol. hybrid complexes with nucleic acids.

IT 153184-89-5 153214-48-3

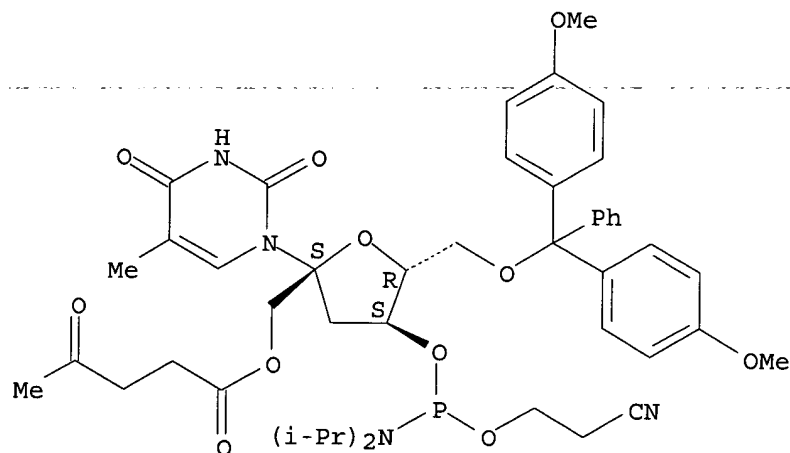
RL: RCT (Reactant); RACT (Reactant or reagent)

(complexes of looped oligonucleotides with single-stranded DNA)

RN 153184-89-5 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-[[1,4-dioxopentyl)oxy)methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

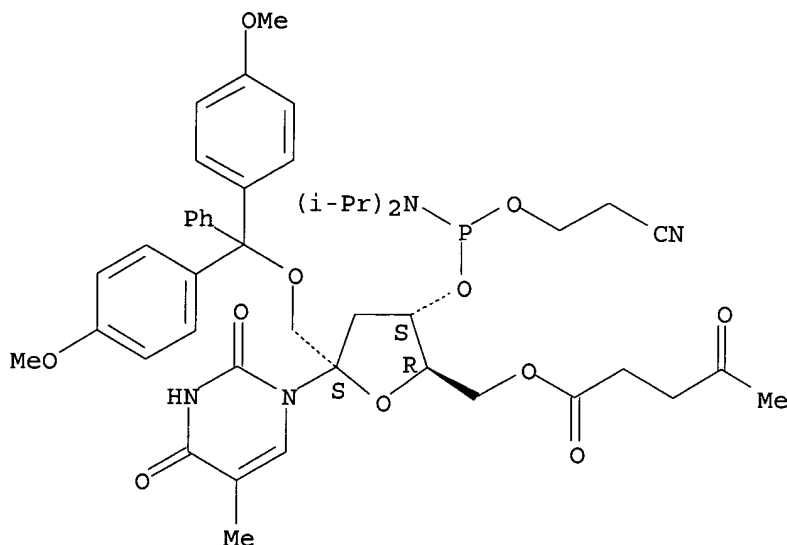
Absolute stereochemistry.



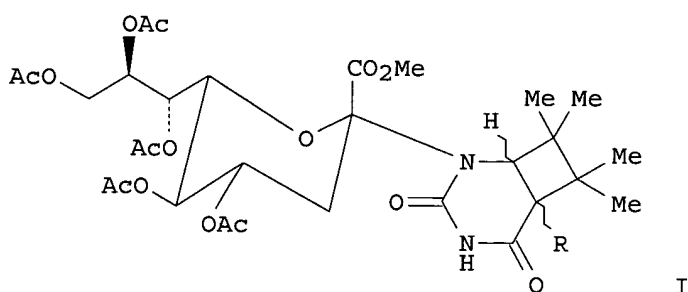
RN 153214-48-3 CAPLUS

CN Thymidine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy)methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] 5'-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 45 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1995:441033 CAPLUS
 DN 123:9850
 TI Synthesis of .alpha.-N-glycosides of 3-deoxy-D-glycero-D-galacto-2-nonulosonic acid (KDN) using nucleobases and their photocycloaddition to 2,3-dimethyl-2-butene
 AU Sun, Xue-Long; Haga, Naoki; Ogura, Haruo; Takayanagi, Hiroaki
 CS Sch. Pharm. Sci., Kitasato Univ., Tokyo, 108, Japan
 SO Chemical & Pharmaceutical Bulletin (1994), 42(11), 2352-6
 CODEN: CPBTAL; ISSN: 0009-2363
 PB Pharmaceutical Society of Japan
 DT Journal
 LA English
 GI



I

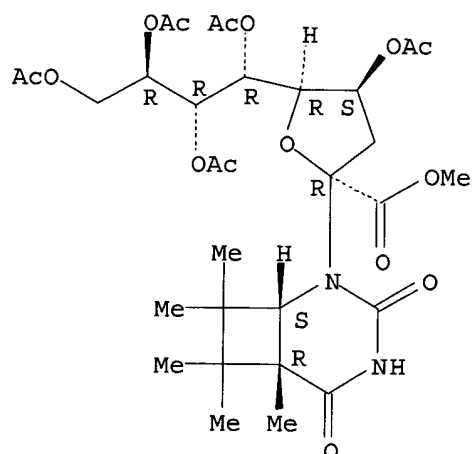
AB .alpha.-N-glycosides of 3-deoxy-D-glycero-D-galacto-2-nonulosonic acid (KDN), e.g. cis-I (R = H, F, Me), having a nucleobase, such as uracil, thymine, 5-fluorouracil or cytosine, were synthesized. Their acetone-sensitized photocycloaddn. to 2,3-dimethyl-2-butene under near-UV irradiation gave a pair of diastereomers having a cyclobutane ring. The absolute configuration of the bridgehead carbon atoms in the products was identified by measurement of sp. rotation as well as 1H-NMR spectral analysis.
 IT **163627-83-6P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis of glycosides of deoxyglycerogalactononulosonic acid using nucleobases and their photocycloaddn. to dimethylbutene)

09567863

RN 163627-83-6 CAPLUS

CN D-glycero-.alpha.-D-galacto-2-Nonulofuranosonic acid, 2,3-dideoxy-2-(6,7,7,8,8-pentamethyl-3,5-dioxo-2,4-diazabicyclo[4.2.0]oct-2-yl)-, methyl ester, 4,6,7,8,9-pentaacetate, (1S-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 46 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1995:337446 CAPLUS

DN 122:240311

TI Divergent and Stereocontrolled Approach to the Synthesis of Uracil Nucleosides Branched at the Anomeric Position

AU Itoh, Yoshiharu; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Gen, Eisen; Miyasaka, Tadashi

CS School of Pharmaceutical Sciences, Showa University, Tokyo, 142, Japan

SO Journal of Organic Chemistry (1995), 60 (3), 656-62

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

AB Electrophilic addn. of NBS/pivalic acid (bromopivaloyloxylolation) to 1-[3,5-bis-O-(tert-butyldimethylsilyl)-2-deoxy-D-erythro-pent-1-endofuranosyl]uracil, readily accessible from O2,2'-anhydrouridine, furnished 1-[2-bromo-3,5-bis-O-(tert-butyldimethylsilyl)-2-deoxy-1-(pivaloyloxy)-.beta.-D-arabinofuranosyl]uracil (I) stereoselectively. This compd. I, having a leaving group at the 1'-position as well as 2'-.beta.-Br that could exert anchimeric assistance, serves as versatile intermediate for the stereocontrolled synthesis of various types of 1'-C-branched derivs. through nucleophilic substitutions by the use of organosilicon and organoaluminum reagents. The whole sequence constitutes the first example of the conversion of a naturally-occurring nucleoside to the analogs branched at the anomeric position.

IT 153959-65-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

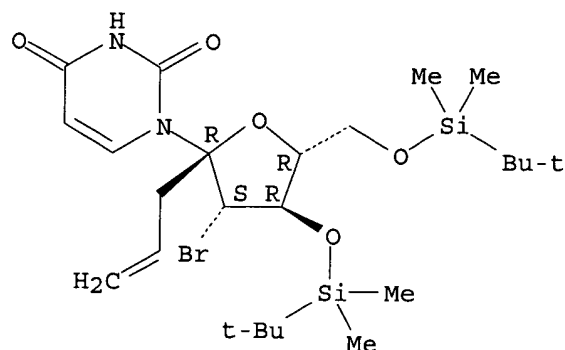
(divergent and stereocontrolled approach to the synthesis of uracil nucleosides branched at the anomeric position)

RN 153959-65-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-1-(2-propenyl)-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.



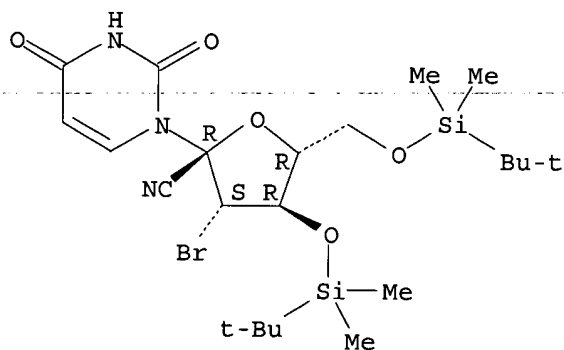
IT 153959-67-2P 153959-68-3P 153959-70-7P
158756-69-5P 162143-55-7P 162143-56-8P
162143-57-9P 162143-60-4P 162143-61-5P
162143-62-6P 162143-63-7P 162240-60-0P
162240-61-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(divergent and stereocontrolled approach to the synthesis of uracil
nucleosides branched at the anomeric position)

RN 153959-67-2 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-
dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-
dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

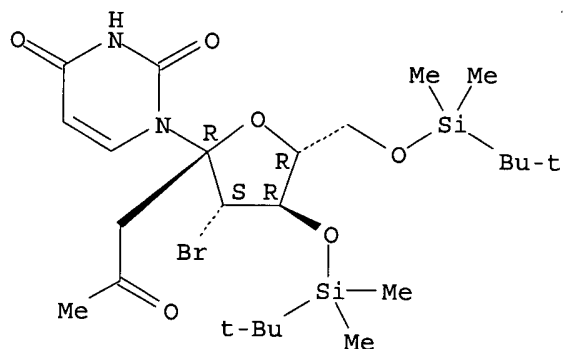


RN 153959-68-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-bromo-1,3,5-trideoxy-6,8-bis-O-[(1,1-
dimethylethyl)dimethylsilyl]-.beta.-D-arabino-2,4-octodiulo-4,7-furanosyl]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

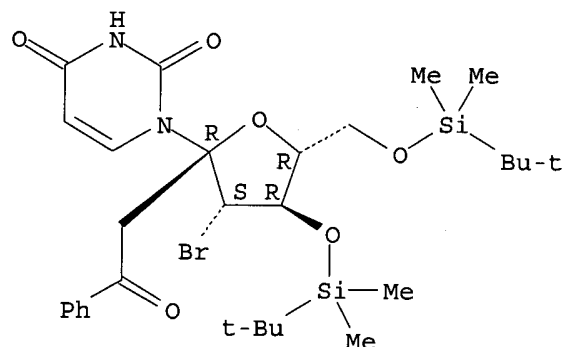
09567863



RN 153959-70-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-2,4-dideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-C-phenyl-.beta.-D-arabino-heptos-3-ulo-3,6-furanosyl]- (9CI) (CA INDEX NAME)

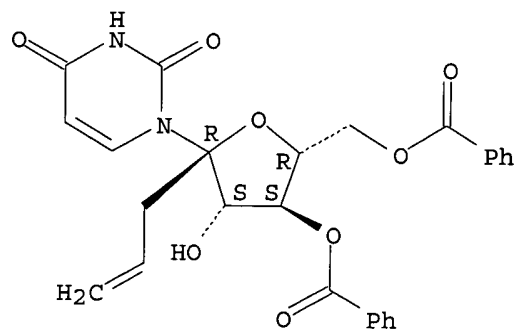
Absolute stereochemistry.



RN 158756-69-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(6,8-di-O-benzoyl-1,2,3-trideoxy-.beta.-D-arabino-oct-1-en-4-ulo-4,7-furanosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 162143-55-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-1,3-dideoxy-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 162143-56-8 CAPLUS

09567863

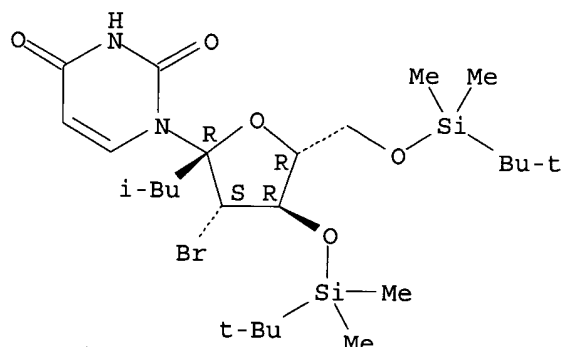
CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-1,2,4-trideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-arabino-3-heptulofuranosyl]- (9CI)
(CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 162143-57-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy][methyl]tetrahydro-2-(2-methylpropyl)-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 162143-60-4 CAPLUS

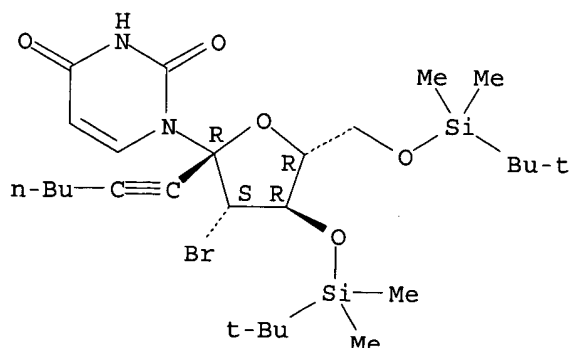
CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-1,2,4-trideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-phenyl-.beta.-D-arabino-hept-1-yn-3-ulofuranosyl]- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 162143-61-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy][methyl]-2-(1-hexynyl)tetrahydro-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 162143-62-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-bromo-1,2,4-trideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-(trimethylsilyl)-.beta.-D-arabino-hept-1-yn-3-ulofuranosyl]- (9CI) (CA INDEX NAME)

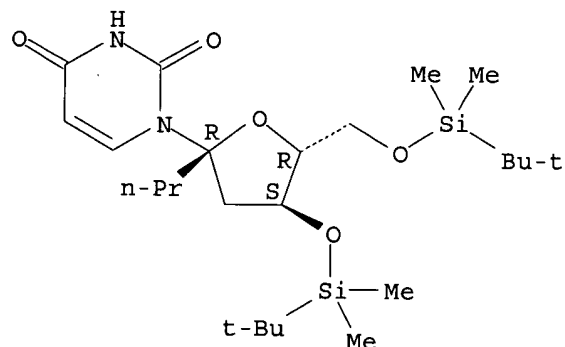
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 162143-63-7 CAPLUS

09567863

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-propyl-2-furanyl]-, [2R-(2.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

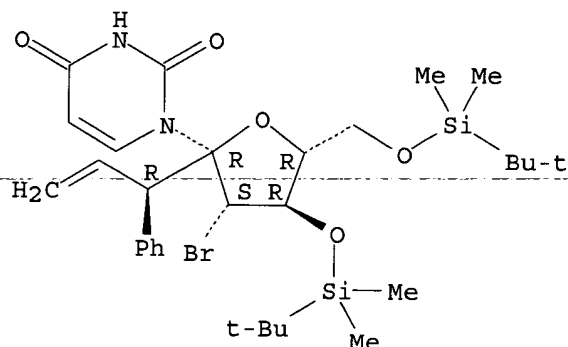
Absolute stereochemistry.



RN 162240-60-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(1-phenyl-2-propenyl)-2-furanyl]-, [2R-[2.alpha.,2(R*),3.alpha.,4.beta.,5.alpha.]]- (9CI) (CA INDEX NAME)

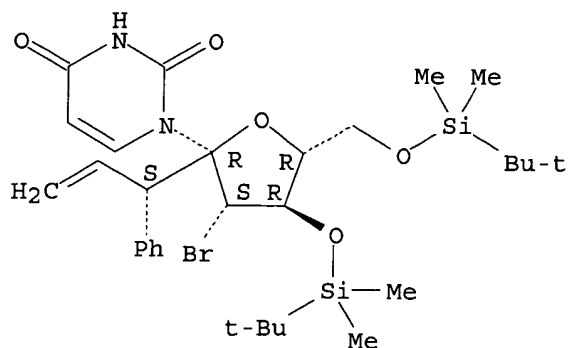
Absolute stereochemistry.



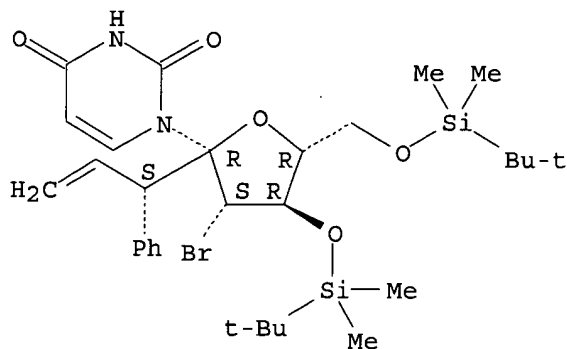
RN 162240-61-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(1-phenyl-2-propenyl)-2-furanyl]-, [2R-[2.alpha.,2(S*),3.alpha.,4.beta.,5.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

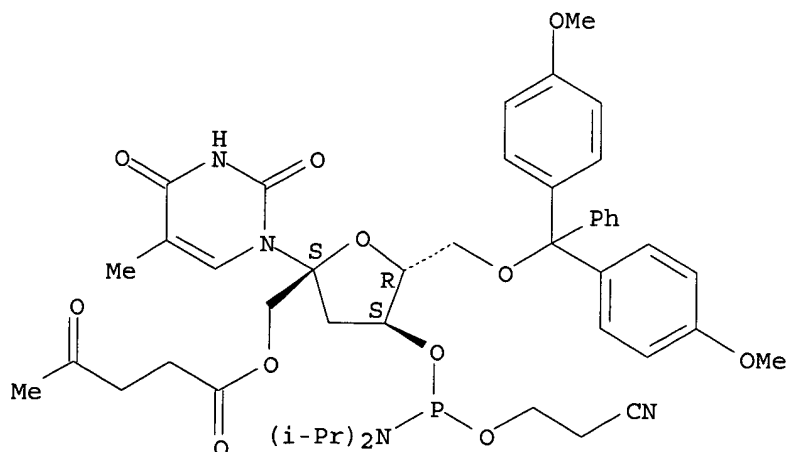


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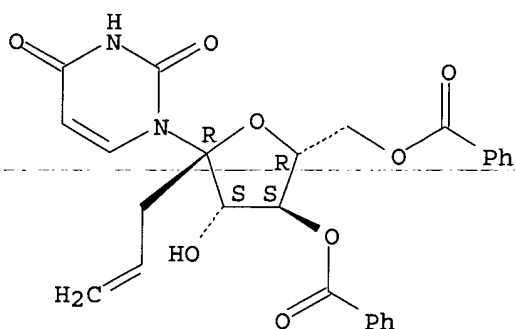
L3 ANSWER 47 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1994:681072 CAPLUS
DN 121:281072
TI Synthesis and Primer Properties of Oligonucleotides Containing
3'-Deoxy-5'-phosphorylthymidine Units, Labeled with Fluorescein at the 1'-Position
AU Guzaev, Andrei; Azhayeva, Elena; Hovinen, Jari; Azhayev, Alex; Lonnberg, Harri
CS Department of Chemistry, University of Turku, Turku, FIN-20500, Finland
SO Bioconjugate Chemistry (1994), 5(6), 501-3
CODEN: BCCHES; ISSN: 1043-1802
DT Journal
LA English
AB Several analogs of the std. M13 sequencing primer that contain up to five
3'-deoxy-5'-phosphorylthymidines, or one or two such units labeled with fluorescein
at the 1'-position, have been prepd. All these oligonucleotides have been
shown to prime the DNA-polymerase-catalyzed synthesis of DNA.
IT **153184-89-5P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(synthesis and primer properties of oligonucleotides contg.
3'-deoxy-5'-phosphorylthymidine units and labeled with fluorescein at
1'-position)
RN 153184-89-5 CAPLUS
CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-[[[(1,4-
dioxopentyl)oxy]methyl]-, 3'-[2-cyanoethyl bis(1-
methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 48 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1994:668367 CAPLUS
 DN 121:268367
 TI A 1'-C-branched uracil nucleoside
 AU Yamaguchi, Kentaro; Ito, Yoshiharu; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Miyasaka, Tadashi
 CS Sch. Pharma. Sci., Showa Univ., Tokyo, 142, Japan
 SO Acta Crystallographica, Section C: Crystal Structure Communications (1994), C50(9), 1472-4
 CODEN: ACSCEE; ISSN: 0108-2701
 DT Journal
 LA English
 AB 1-(1'-Allyl-3',5'-di-O-benzoyl-.beta.-D-arabinofuranosyl)-2,4(1H,3H)-pyrimidinedione is orthorhombic, space group P212121, with a 10.618(1), b 21.954(1), c 10.611(1) .ANG.; Z = 4, dc = 1.322; R = 0.048, Rw = 0.047 for 2329 reflections. At. coordinates are given. The uracil nucleobase has .beta. orientation in this mol.
 IT 158756-69-5, 1-(1'-Allyl-3',5'-di-O-benzoyl-.beta.-D-arabinofuranosyl)-2,4(1H,3H)-pyrimidinedione
 RL: PRP (Properties)
 (crystal structure of)
 RN 158756-69-5 CAPLUS
 CN 2,4(1H,3H)-Pyrimidinedione, 1-(6,8-di-O-benzoyl-1,2,3-trideoxy-.beta.-D-arabino-oct-1-en-4-ulo-4,7-furanosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 49 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1994:558072 CAPLUS
 DN 121:158072
 TI Intramolecular hydrogen bonding in primary hydroxyl of thymine 1-(1-deoxy-.beta.-D-psicofuranosyl) nucleoside
 AU Martin, Xavier; Moreno, Miquel; Lluch, Jose M.; Grouiller, Annie
 CS Dep. Quim., Univ. Autònoma de Barcelona, Barcelona, 08193, Spain
 SO Tetrahedron (1994), 50(22), 6689-94
 CODEN: TETRAB; ISSN: 0040-4020
 DT Journal
 LA English
 AB A conformational anal. of 1-(1-deoxy-.beta.-D-psicofuranosyl)- thymine (I) and 1-(.beta.-D-ribofuranosyl) thymine has been performed by using the semiempirical AM1 methodol. A topol. anal. of the total charge d. and the Laplacian of both mols. is carried out in order to assess the presence of an intramol. hydrogen bond. It is concluded that a clear hydrogen bond exists in structure I in such a way that the primary alc. is exptl. found totally unreactive with any reagent in any conditions.
 IT 34441-68-4

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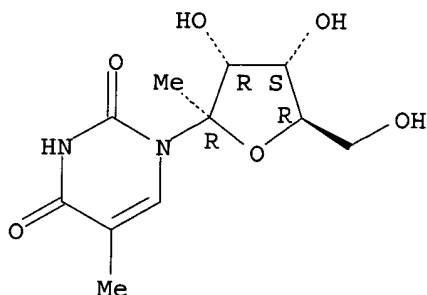
RL: PRP (Properties)

(conformation and intramol. hydrogen bond of)

RN 34441-68-4 CAPLUS

CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 50 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1994:500054 CAPLUS

DN 121:100054

TI A binding site model and structure-activity relationships for the rat A3 adenosine receptor

AU van Galen, Philip J. M.; van Bergen, Andrew H.; Gallo-Rodriguez, Carola; Melman, Neli; Olah, Mark E.; Ijzerman, Ad P.; Stiles, Gary L.; Jacobson, Kenneth A.

CS Lab. Bioorganic Chem., Natl. Inst. Diabetes, Digestive and Kidney Diseases, Bethesda, MD, 20892, USA

SO Molecular Pharmacology (1994), 45(6), 1101-11

CODEN: MOPMA3; ISSN: 0026-895X

DT Journal

LA English

AB A novel adenosine receptor, the A3 receptor, has recently been cloned. The authors have systematically investigated the hitherto largely unexplored structure-activity relationships (SARs) for binding at A3 receptors, using ¹²⁵I-N⁶-2-(4-aminophenyl)ethyladenosine as a radioligand and membranes from Chinese hamster ovary cells stably transfected with the rat A3-cDNA. As is the case for A1 and A2a receptors, substitutions at the N6 and 5' positions of adenosine, the prototypic agonist ligand, may yield fairly potent compds. However, the highest affinity and A3 selectivity is found for N₆,5'-disubstituted compds., in contrast to A2 and A2a receptors. Thus, N₆-benzyladenosine-5'-N-ethylcarboxamide is highly potent (K_i, 6.8 nM) and moderately selective (13- and 14-fold vs. A1 and A2a). The N₆ region of the A3 receptor also appears to tolerate hydrophilic substitutions, in sharp contrast to the other subtypes. Potencies of N₆,5'-disubstituted compds. in inhibition of adenylate cyclase via A3 receptors parallel their high affinity in the binding assay. None of the typical xanthine or nonxanthine (A1/A2) antagonists tested show any appreciable affinity for rat A3 receptors. 1,3-Dialkylxanthines did not antagonize the A3 agonist-induced inhibition of adenylate cyclase. A His residue in helix 6 that is absent in A3 receptors but present in A1/A2 receptors may be causal in this respect. In a mol. model for the rat A3 receptor, this mutation, together with an increased bulkiness of residues surrounding the ligand, make antagonist binding unfavorable when compared with a previously developed A1 receptor model. Second, this A3 receptor model predicted similarities with A1 and A2 receptors in the binding requirements for the ribose moiety and that xanthine-7-ribosides would bind to rat A3 receptors. This hypothesis was supported exptl. by the moderate affinity (K_i, 6 .mu.M) of 7-riboside of

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1,3-dibutylxanthine, which appears to be a partial agonist at rat A3 receptors. The model presented here which is consistent with the detailed SAR found in this study, may serve to suggest future chem. modification, site-directed mutagenesis, and SAR studies to further define essential characteristics of the ligand-receptor interaction and to develop even more potent and selective A3 receptor ligands.

IT 1874-54-0

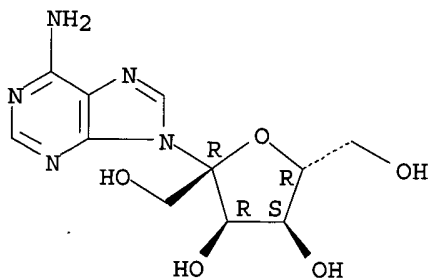
RL: BIOL (Biological study)

(adenosine A1 and A2a and A3 receptors affinity for, mol. structure in relation to)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 51 OF 201 CAPLUS COPYRIGHT 2003 ACS

DN 121:83863

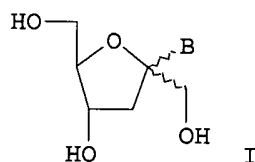
1-(3-deoxy-D-erythro-2-hexulofuranosyl)thymines and 9-(3-deoxy-D-erythro-2-hexulofuranosyl)adenines

CS Dep. Chem., Univ. Turku, Turku, FIN-20500, Finland

CODEN: SYNTBF; ISSN: 0039-7881

LA English

GI



AB Deoxypsiconucleosides I (B = adenine, thymine) were prepd. by tin(IV) chloride catalyzed N-glycosylation of trimethylsilylated thymine and N6-benzoyladenine with Me 3-deoxy-D-erythro-2-hexulofuranoside triacetate or tribenzoate, resp. These O-glycosides used as starting materials were obtained by deoxygenation of 1,2:4,5-di-O-isopropylidene-.beta.-D-fructopyranose and subsequent acid-catalyzed methanolysis of the resulting 3-deoxy deriv. The anomeric configuration of the nucleosides prepd. was assigned by a combination of X-ray crystallog. and 2D 1H NMR spectroscopy. The conformation and hydrolytic stability of these new nucleoside analogues are discussed.

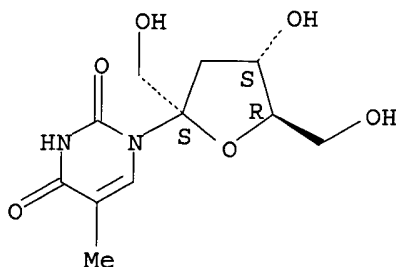
IT 153184-84-0P 156357-62-9P 156357-63-0P
156357-64-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 153184-84-0 CAPLUS

CN Thymidine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

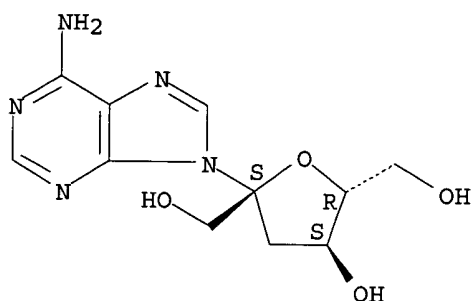


RN 156357-62-9 CAPLUS

CN Adenosine, 2'-deoxy-1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

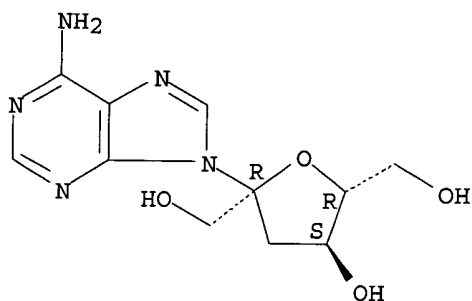
Absolute stereochemistry.

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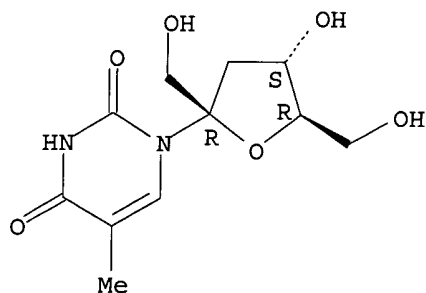
RN 156357-63-0 CAPLUS
CN 9H-Purin-6-amine, 9-(3-deoxy-.alpha.-D-erythro-2-hexulofuranosyl)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



RN 156357-64-1 CAPLUS
CN 2,4-(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.alpha.-D-erythro-2-hexulofuranosyl)-5-methyl- (9CI) (CA INDEX NAME)

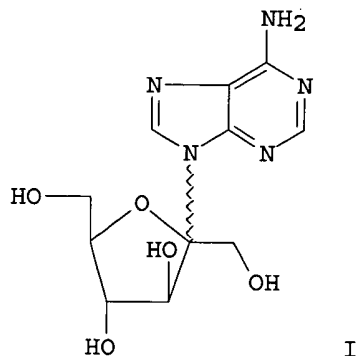
Absolute stereochemistry.



L3 ANSWER 52 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1994:483848 CAPLUS
DN 121:83848
TI Synthesis of D-fructofuranosylpurine nucleosides
AU Bouali, Abderrahime; Ewing, David F.; Mackenzie, Grahame
CS Sch. Chem., Univ. Hull, Hull, HU6 7RX, UK
SO Nucleosides & Nucleotides (1994), 13(1-3), 491-9
CODEN: NUNUD5; ISSN: 0732-8311
DT Journal

09567863

LA English
OS CASREACT 121:83848
GI



AB The Mitsunobu reaction has been applied to the formation of D-fructofuranosylpurine nucleosides, e.g. I. The use of O-benzyl protection results in a predominance of the .beta.-configuration in these novel compds. and both .alpha.- and .beta.-D-fructofuranosyladenine are obtained in stereochem. pure form.

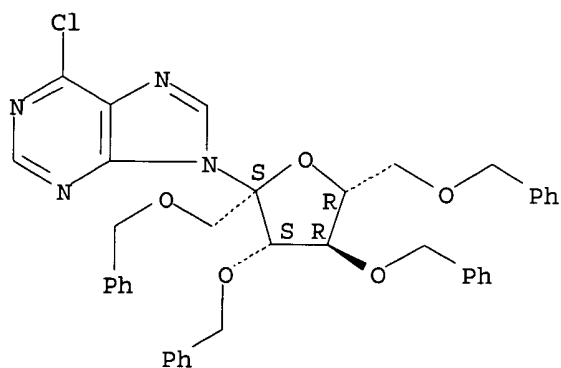
IT 156457-07-7P 156457-08-8P 156457-09-9P
156457-10-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in prepn. of D-fructofuranosylpurine nucleosides)

RN 156457-07-7 CAPLUS

CN 9H-Purine, 6-chloro-9-[1,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-fructofuranosyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

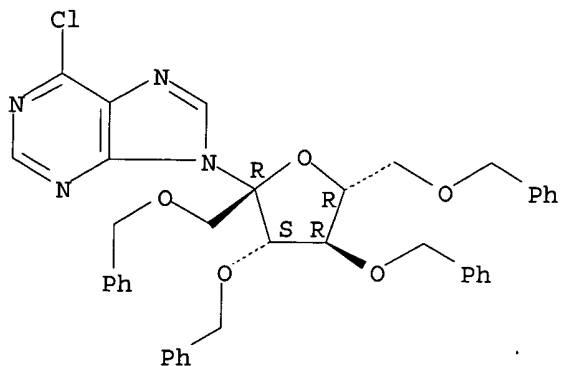


RN 156457-08-8 CAPLUS

CN 9H-Purine, 6-chloro-9-[1,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-fructofuranosyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

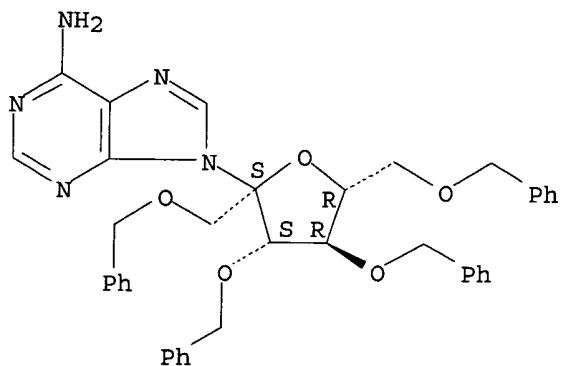
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RN 156457-09-9 CAPLUS

CN 9H-Purin-6-amine, 9-[1,3,4,6-tetrakis-O-(phenylmethyl)-.alpha.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

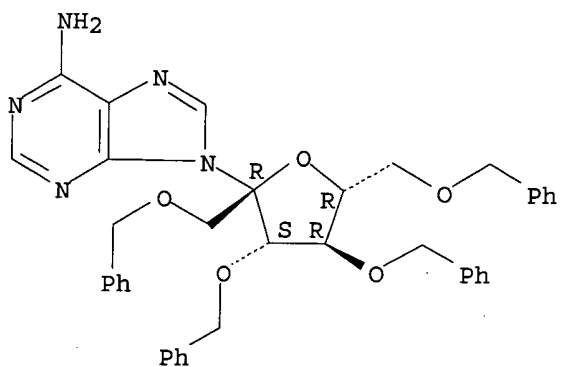
Absolute stereochemistry.



RN 156457-10-2 CAPLUS

CN 9H-Purin-6-amine, 9-[1,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 6936-84-1P 95403-90-0P 156457-06-6P

156457-11-3P 156457-12-4P

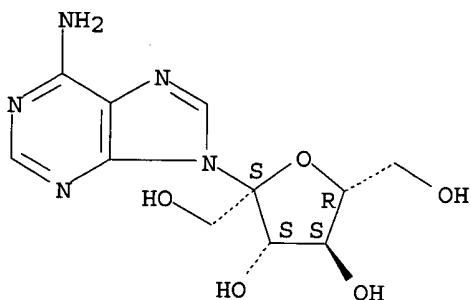
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 6936-84-1 CAPLUS

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CN 9H-Purin-6-amine, 9- α -D-fructofuranosyl- (9CI) (CA INDEX NAME)

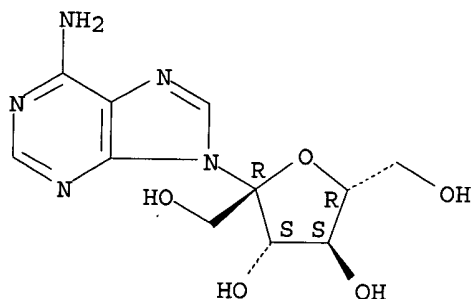
Absolute stereochemistry.



RN 95403-90-0 CAPLUS

CN 9H-Purin-6-amine, 9- β -D-fructofuranosyl- (9CI) (CA INDEX NAME)

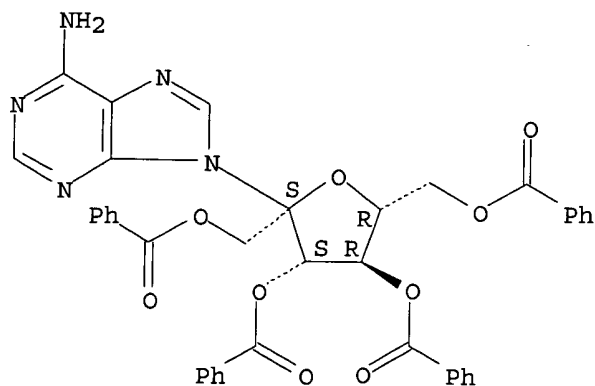
Absolute stereochemistry.



RN 156457-06-6 CAPLUS

CN 9H-Purin-6-amine, 9-(1,3,4,6-tetra-O-benzoyl- α -D-fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

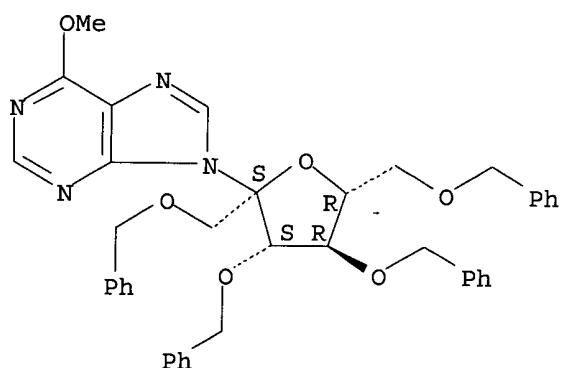


RN 156457-11-3 CAPLUS

CN 9H-Purine, 6-methoxy-9-[1,3,4,6-tetrakis-O-(phenylmethyl)- α -D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

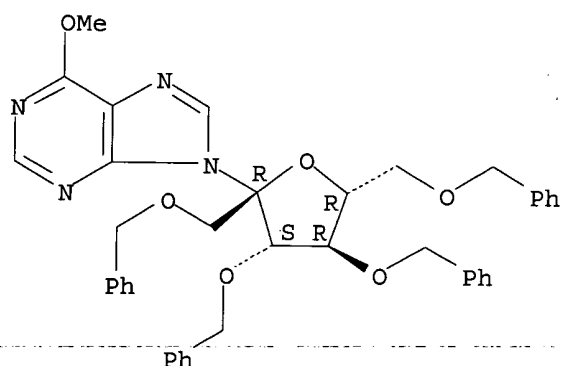
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RN 156457-12-4 CAPLUS

CN 9H-Purine, 6-methoxy-9-[1,3,4,6-tetrakis-O-(phenylmethyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 53 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1994:409895 CAPLUS

DN 121:9895

TI Nucleosides and nucleotides. 121. Synthesis of oligonucleotides carrying linker groups at the 1'-position of sugar residues

AU Ono, Akira; Dan, Akihito; Matsuda, Akira

CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan

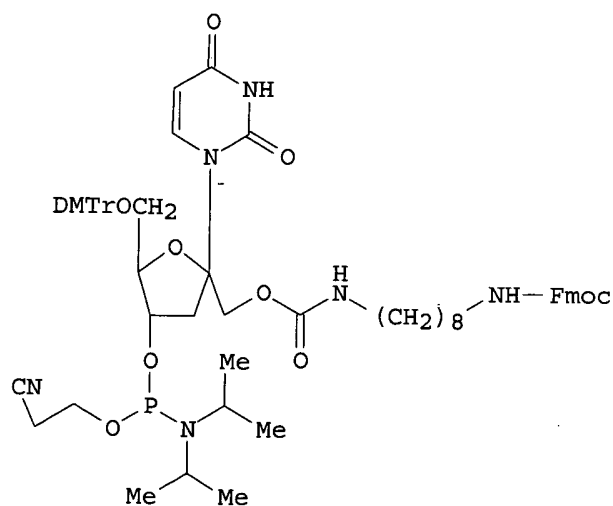
SO Bioconjugate Chemistry (1993), 4(6), 499-508

CODEN: BCCHE5; ISSN: 1043-1802

DT Journal

LA English

GI



I

AB Novel 2'-deoxyuridine analogs, e.g. I, carrying aminoalkyl linkers at the 1'-position of the sugar residues were synthesized and incorporated into oligonucleotides, then intercalating groups such as an anthraquinone deriv. and a pyrene deriv. were attached to the amino groups. Duplexes consisting of the oligonucleotides carrying the linker groups and a complementary ribonucleotide were more stable than an unmodified parent duplex, but the duplexes consisting of the oligonucleotides and a complementary deoxyribonucleotide were less stable. The oligonucleotides carrying the linker groups were more resistant to nuclease P1 and venom phosphodiesterase than an unmodified oligonucleotide. Furthermore, a duplex formed by the oligonucleotide analog and the complementary ribonucleotide was a substrate for RNase H.

IT 152773-17-6P

RL:-SPN-(Synthetic preparation); PREP-(Preparation)

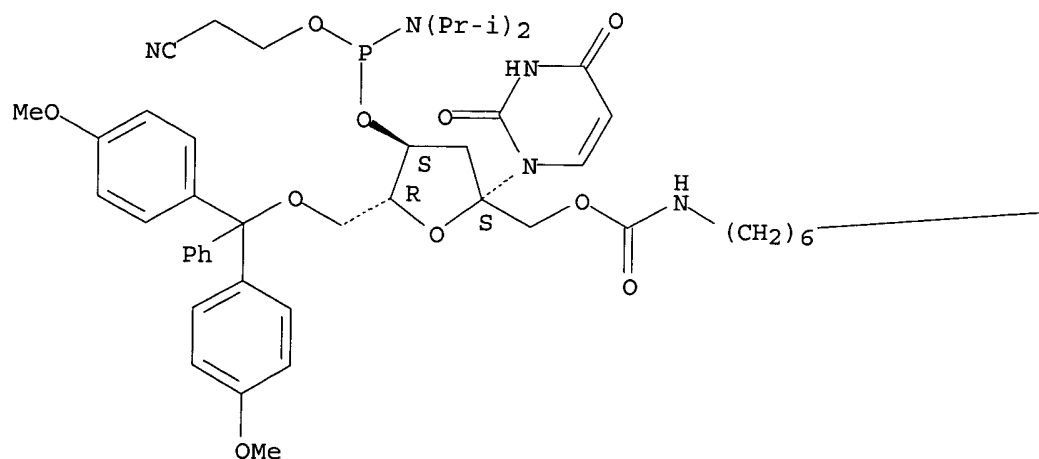
(prepn. and incorporation of, into oligodeoxyribonucleotides)

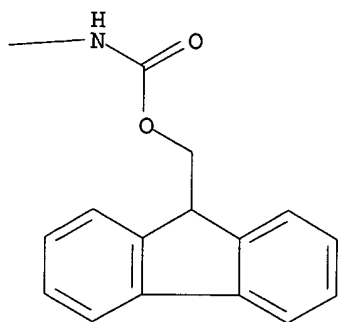
RN 152773-17-6 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[14-(9H-fluoren-9-yl)-3,12-dioxo-2,13-dioxo-4,11-diazatetradec-1-yl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





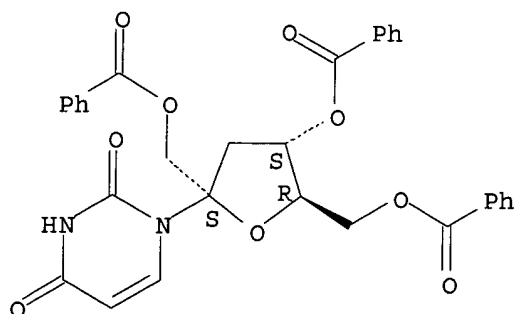
IT 55697-36-4P 150880-79-8P 150880-80-1P
152773-13-2P 152773-14-3P 152773-15-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and reaction of, in synthesis of olidodeoxyribonucleotide
duplexes)

RN 55697-36-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-3-deoxy-.beta.-D-
erythro-2-hexulofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

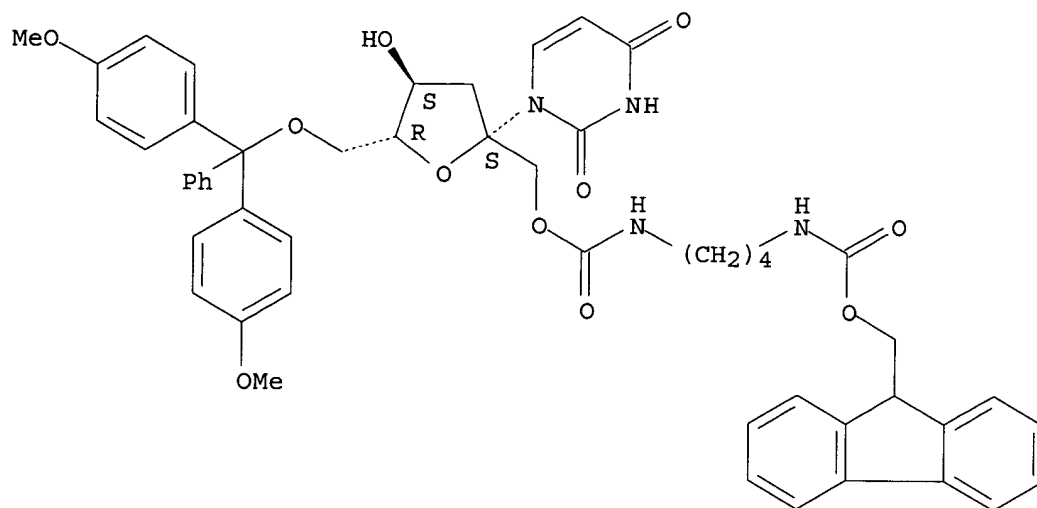


RN 150880-79-8 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[12-(9H-
fluoren-9-yl)-3,10-dioxo-2,11-dioxo-4,9-diazadodec-1-yl]- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.

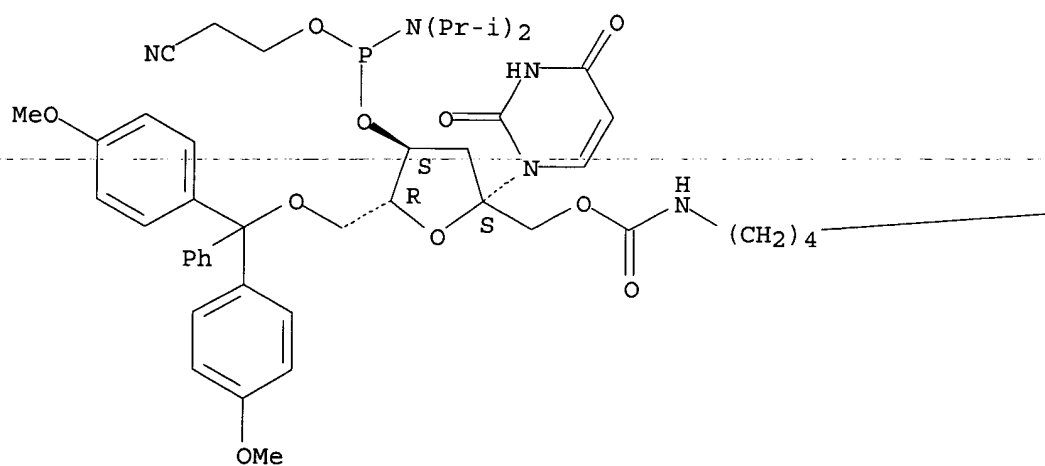
09567863

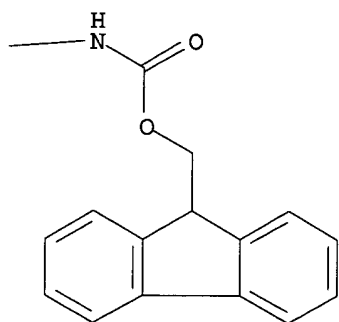


RN 150880-80-1 CAPLUS
 CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[12-(9H-fluoren-9-yl)-3,10-dioxo-2,11-dioxo-4,9-diazadodec-1-yl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

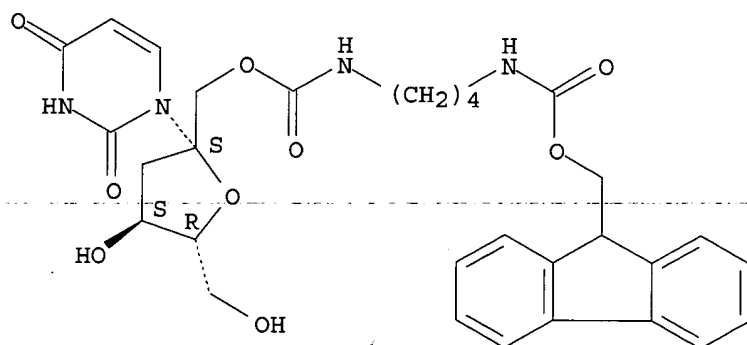




RN 152773-13-2 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[12-(9H-fluoren-9-yl)-3,10-dioxo-2,11-dioxa-4,9-diazadodec-1-yl]- (9CI) (CA INDEX NAME)

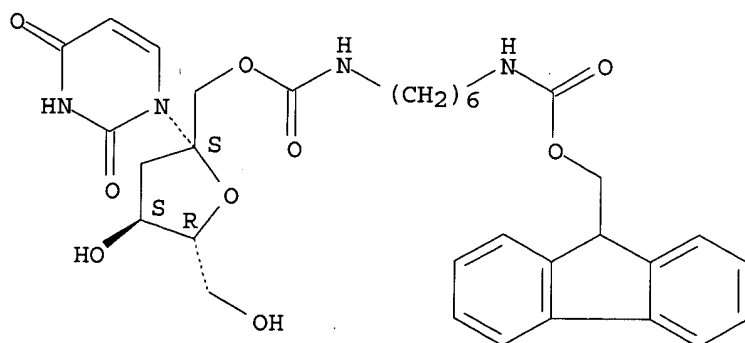
Absolute stereochemistry.



RN 152773-14-3 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[14-(9H-fluoren-9-yl)-3,12-dioxo-2,13-dioxa-4,11-diazatetradec-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

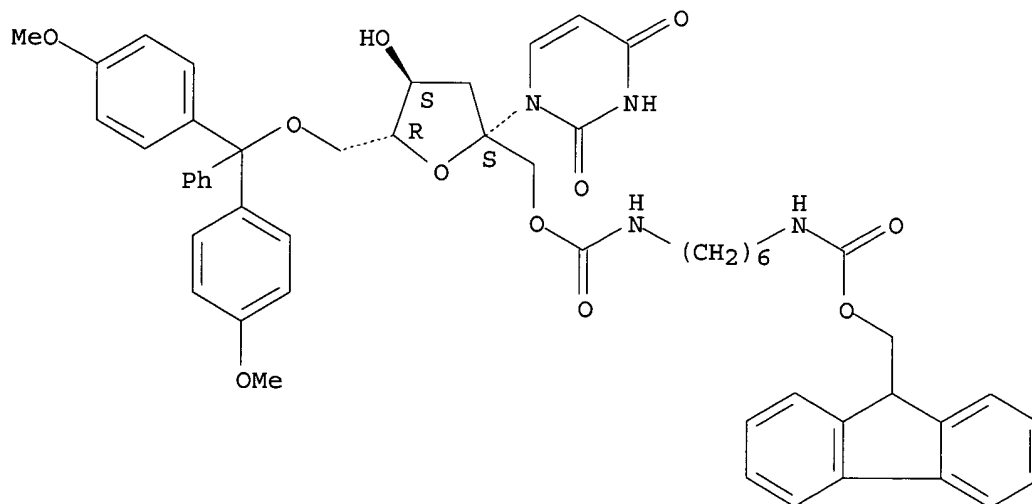


RN 152773-15-4 CAPLUS

09567863

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[14-(9H-fluoren-9-yl)-3,12-dioxo-2,13-dioxo-4,11-diazatetradec-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



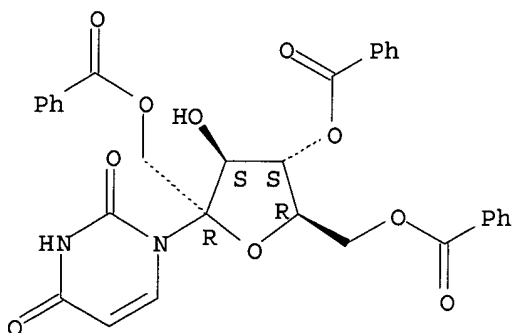
IT 145396-32-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in synthesis of oligodeoxyribonucleotide duplexes)

RN 145396-32-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-.beta.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 150880-73-2P 150880-74-3P 150880-75-4P

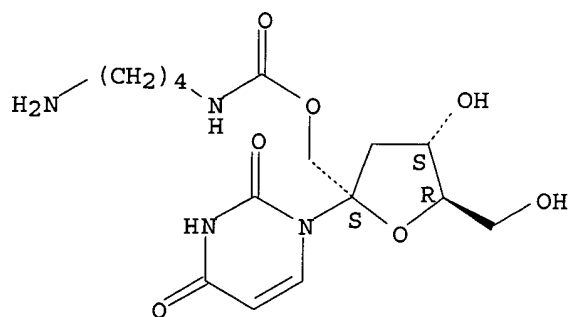
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in synthesis of oligodeoxyribonucleotides duplexes)

RN 150880-73-2 CAPLUS

CN Uridine, 1'-C-[[[(4-aminobutyl)amino]carbonyl]oxy]methyl]-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

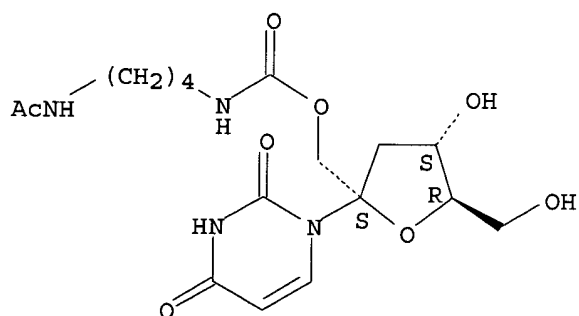
09567863



RN 150880-74-3 CAPLUS

CN Uridine, 1'-C-[[[4-(acetylamino)butyl]amino]carbonyl]oxy]methyl]-2'-deoxy- (9CI) (CA INDEX NAME)

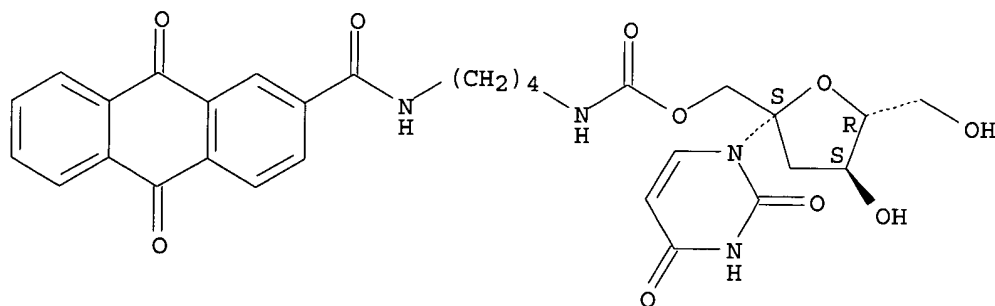
Absolute stereochemistry.



RN 150880-75-4 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[[[4-[[[9,10-dihydro-9,10-dioxo-2-anthracenyl]carbonyl]amino]butyl]amino]carbonyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 54 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1994:324142 CAPLUS

DN 120:324142

TI Preparation of (di)deoxyfructonucleosides and (di)deoxyfructonucleotides

IN Sabesan, Subramaniam; Trainor, George L.

PA du Pont de Nemours, E. I., and Co., USA

SO U.S., 11 pp.

CODEN: USXXAM

DT Patent

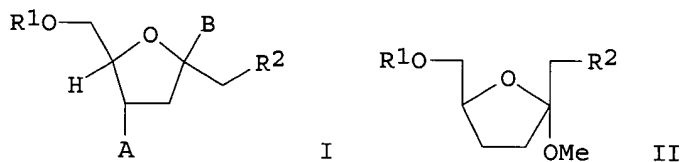
09567863

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5276143	A	19940104	US 1990-631567	19901221
	WO 9501986	A1	19950119	WO 1993-US6365	19930709
	W:		AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, VN		
	RW:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
	AU 9347704	A1	19950206	AU 1993-47704	19930709
	EP 707590	A1	19960424	EP 1993-918150	19930709
	EP 707590	B1	19970129		
	R:		DE, FR, GB, IT		
	JP 08512317	T2	19961224	JP 1993-504007	19930709
PRAI	US 1990-631567		19901221		
	WO 1993-US6365		19930709		

GI



AB (Di)deoxyfructonucleotides and -nucleosides [I; R1 = H3P2O3, H3P2O6, H4P3O9, H; B = naturally occurring or synthetically modified nucleic acid base, inosine or deazaadenosine; R2 = OR3, N3, Y-Biotinyl, NHCO(CH2)nY-Biotinyl; wherein R3 = H, C1-5 alkyl, PhCH2, C1-5 acyl, (un)substituted Photog. coupler; Y = NH, O; n = 1-10; A = H, OH; provided that when A = OH, R1 = R2 noteq. H] are prepd. These nucleotides are used as propagators and terminators in DNA polymerase extension reactions for sequencing DNA. Thus, desilylation of a dideoxyfructofuranoside (II; R1 = Bz, R2 = OSiMe2CMe3) (prepn. given) by Bu4NF in THF followed by chlorination with SO2Cl2 and imidazole in DMF and reaction with NaN3 in DMF at 70.degree. for 1 h gave II (R1 = Bz, R2 = N3). Coupling of the latter compd. with 2,4-di-O-trimethylsilylthymine in the presence of trimethylsilyl triflate in MeNO2-CH2Cl2 at -5.degree. gave, after debenzoylation with MeONa in MeOH, I (R1 = A = H, R2 = N3, B = 1-thyminy) which was stirred with cytosine and POCl3 in (MeO)3P(O) and then treated with a soln. of tris(tributylammonium) pyrophosphate in DMF to give I (R1 = H4P3O9, R2 = N3, A = H, B = 1-thyminy). Hydrogenation of the latter compd. over 10% Pd-C in water and condensation of the resulting amine with sulfosuccinimidyl 6-(biotinamido)hexanoate Na salt in 1.0 M aq. triethylammonium bicarbonate (pH 7.6) gave a biotin-contg. dideoxyfructonucleotide I [R1 = H4P3O9, R2 = 6-(biotinamido)hexanamido, A = H, B = 1-thyminy] (III). In one example, III was used as a terminator in a Taq polymerase DNA chain extension reaction.

IT 155188-85-5P 155188-92-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

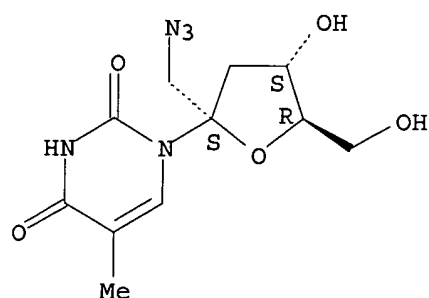
(prepn. of, as intermediate for substrates of DNA polymerase extension reactions in DNA sequencing)

RN 155188-85-5 CAPLUS

CN Thymidine, 1'-C-(azidomethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

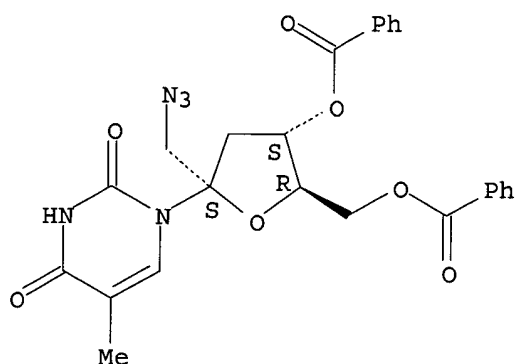
09567863



RN 155188-92-4 CAPLUS

CN Thymidine, 1'-C-(azidomethyl)-, 3',5'-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 55 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1994:245667 CAPLUS

DN 120:245667

TI Anomeric manipulation of nucleosides: stereospecific entry to 1'-C-branched uracil nucleosides

AU Haraguchi, Kazuhiro; Itoh, Yoshiharu; Tanaka, Hiromichi; Yamaguchi, Kentaro; Miyasaka, Tadashi

CS Sch. Pharm. Sci., Showa Univ., Tokyo, 142, Japan

SO Tetrahedron Letters (1993), 34(43), 6913-16

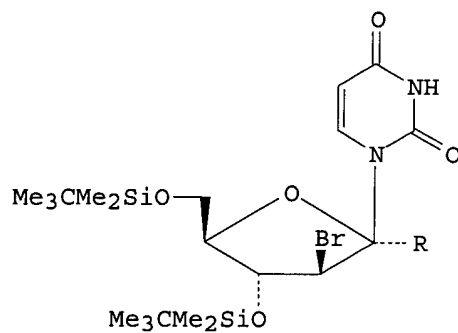
CODEN: TELEAY; ISSN: 0040-4039

DT Journal

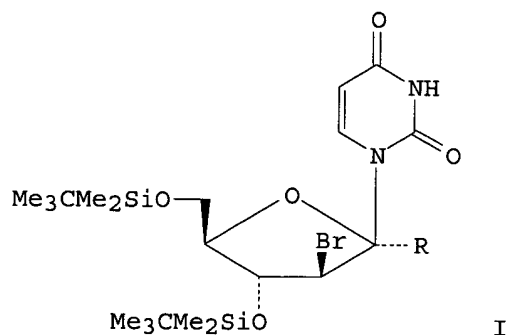
LA English

OS CASREACT 120:245667

GI



I



AB Uracil nucleosides, e.g. I (R = CH₂CH:CH₂, CN, CH₂Ac, CH₂Bz), variously branched at the anomeric position have been synthesized through stereoselective bromo-pivaloyloxylolation of a 1',2'-unsatd. deriv. and successive SnCl₄-promoted nucleophilic substitution with organosilicon reagents. This constitutes the first example of C-C bond formation at the anomeric position of nucleoside.

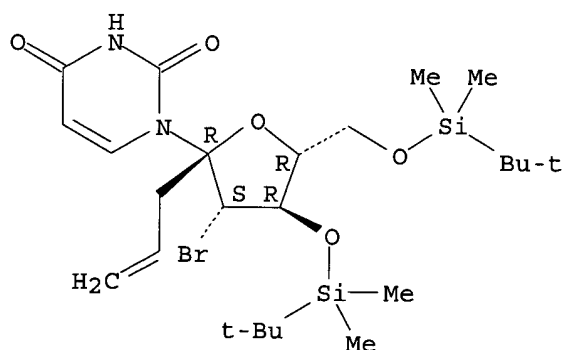
IT 153959-65-0P 153959-66-1P 153959-67-2P
 153959-68-3P 153959-70-7P 153959-71-8P
 153959-72-9P 153959-73-0P 153959-74-1P
 153959-76-3P 153959-77-4P 153959-78-5P
 153959-79-6P 153959-81-0P 153959-82-1P
 153959-83-2P 153959-84-3P 153959-85-4P
 153959-87-6P 154007-01-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)

RN 153959-65-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-1-(2-propenyl)-2-furanyl]-, [2R-(2.alpha.,3.alpha.,4.beta.,5.alpha.)]- (9CI) (CA INDEX NAME)

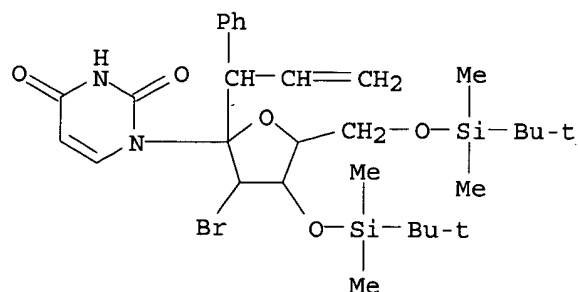
Absolute stereochemistry.



RN 153959-66-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-bromo-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]tetrahydro-2-(1-phenyl-2-propenyl)-2-furanyl]- (9CI) (CA INDEX NAME)

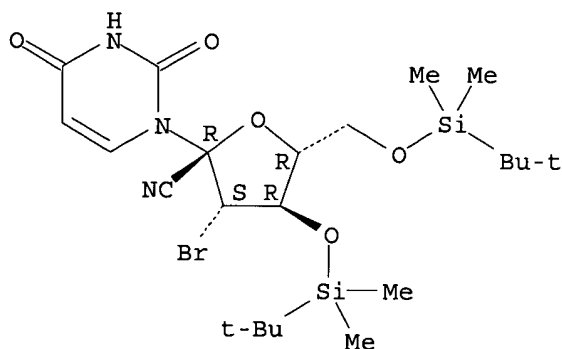
09567863



RN 153959-67-2 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 3-bromo-2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-4,6-bis-O-[(1,1-dimethylethyl)dimethylsilyl]- (9CI) (CA INDEX NAME)

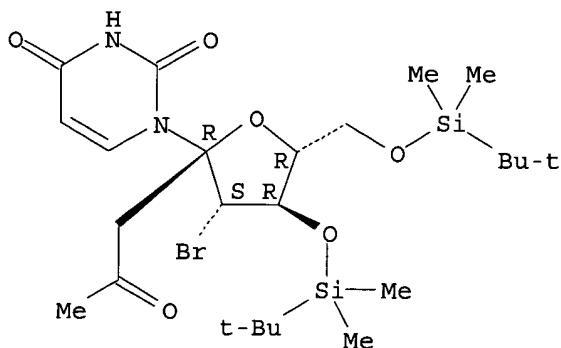
Absolute stereochemistry.



RN 153959-68-3 CAPLUS

CN 2,4-(1H,3H)-Pyrimidinedione, 1-[5-bromo-1,3,5-trideoxy-6,8-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-arabino-2,4-octodiulo-4,7-furanosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

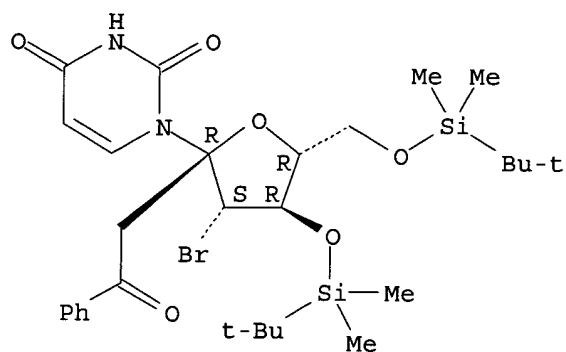


RN 153959-70-7 CAPLUS

CN 2,4-(1H,3H)-Pyrimidinedione, 1-[4-bromo-2,4-dideoxy-5,7-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-1-C-phenyl-.beta.-D-arabino-heptos-3-ulo-3,6-furanosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

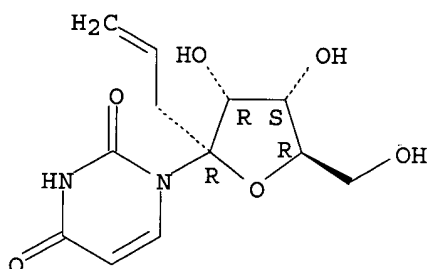
09567863



RN 153959-71-8 CAPLUS

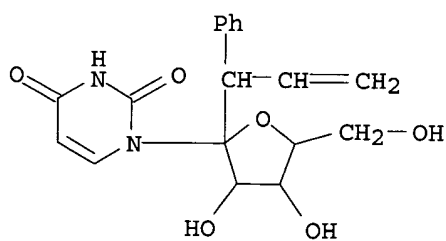
CN Uridine, 1'-C-2-propenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 153959-72-9 CAPLUS

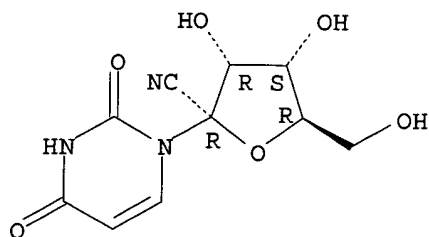
CN Uridine, 1'-C-(1-phenyl-2-propenyl)- (9CI) (CA INDEX NAME)



RN 153959-73-0 CAPLUS

CN Uridine, 1'-C-cyano- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

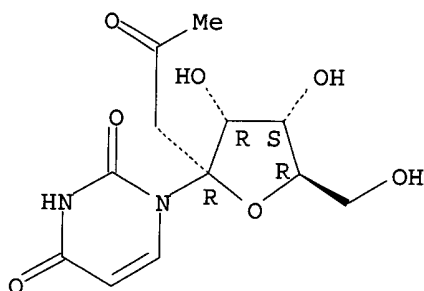


RN 153959-74-1 CAPLUS

09567863

CN Uridine, 1'-C-(2-oxopropyl)- (9CI) (CA INDEX NAME)

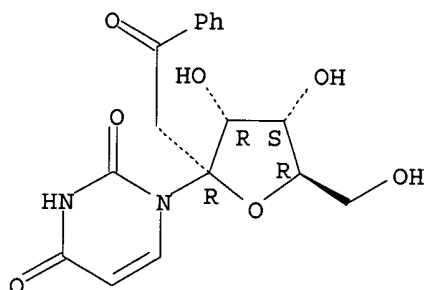
Absolute stereochemistry.



RN 153959-76-3 CAPLUS

CN Uridine, 1'-C-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

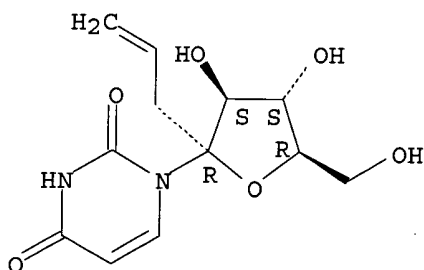
Absolute stereochemistry.



RN 153959-77-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,2,3-trideoxy-.beta.-D-arabino-oct-1-en-4-ulo-4,7-furanosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

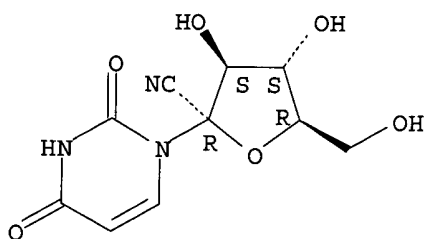


RN 153959-78-5 CAPLUS

CN .beta.-D-arabino-2-Hexulofuranosononitrile, 2-deoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)- (9CI) (CA INDEX NAME)

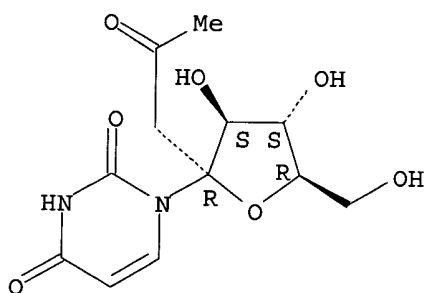
Absolute stereochemistry.

09567863



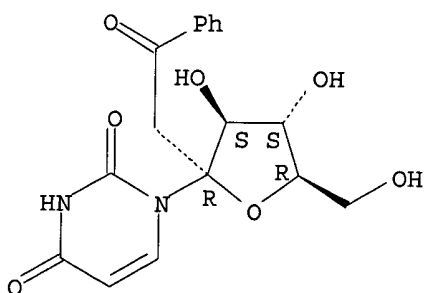
RN 153959-79-6 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,3-dideoxy-.beta.-D-arabino-2,4-octodiulo-4,7-furanosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

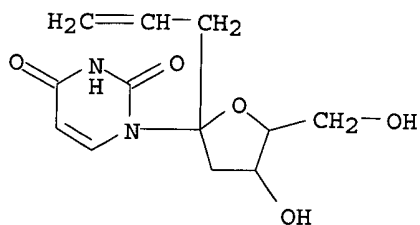


RN 153959-81-0 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(2-deoxy-1-C-phenyl-.beta.-D-arabino-heptos-3-ulo-3,6-furanosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



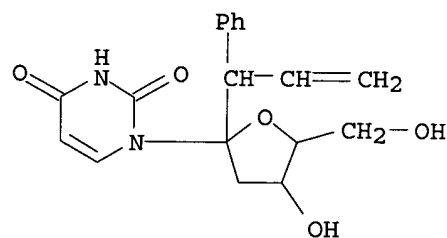
RN 153959-82-1 CAPLUS
CN Uridine, 2'-deoxy-1'-C-2-propenyl- (9CI) (CA INDEX NAME)



RN 153959-83-2 CAPLUS

09567863

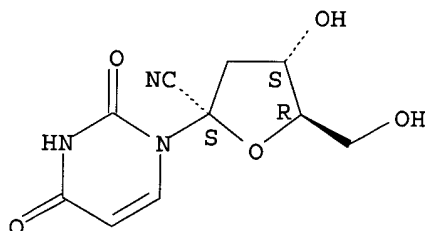
CN 2,4(1H,3H)-Pyrimidinedione, 1-[tetrahydro-4-hydroxy-5-(hydroxymethyl)-2-(1-phenyl-2-propenyl)-2-furanyl]- (9CI) (CA INDEX NAME)



RN 153959-84-3 CAPLUS

CN .beta.-D-erythro-2-Hexulofuranosononitrile, 2,3-dideoxy-2-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)- (9CI) (CA INDEX NAME)

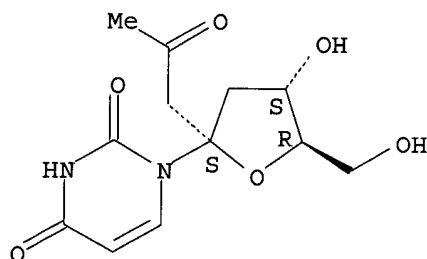
Absolute stereochemistry.



RN 153959-85-4 CAPLUS

CN Uridine, 2'-deoxy-1'-C-(2-oxopropyl)- (9CI) (CA INDEX NAME)

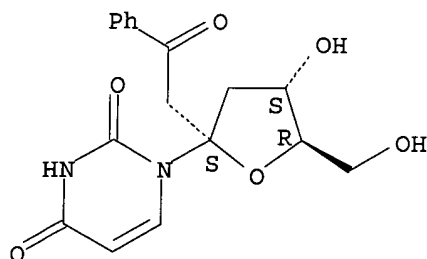
Absolute stereochemistry.



RN 153959-87-6 CAPLUS

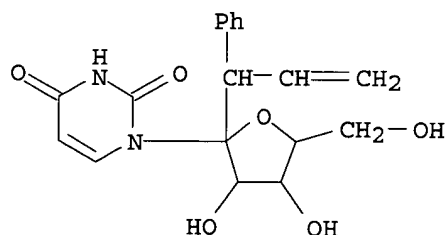
CN Uridine, 2'-deoxy-1'-C-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

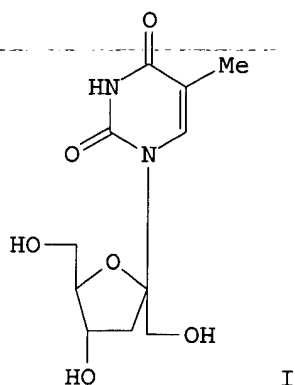


09567863

RN 154007-01-9 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(3.xi.)-1,2,3-trideoxy-3-phenyl-.beta.-D-arabino-oct-1-en-4-ulofuranosyl]- (9CI) (CA INDEX NAME)



L3 ANSWER 56 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1994:218372 CAPLUS
DN 120:218372
TI Analogs of oligonucleotides containing 3'-deoxy-.beta.-D-psicothymidine
AU Azhayev, Alex; Gouzaev, Andrei; Hovinen, Jari; Azhayeva, Elena; Lonnberg, Harri
CS Dep. Chem., Univ. Turku, Turku, 20500, Finland
SO Tetrahedron Letters (1993), 34(40), 6435-8
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
GI



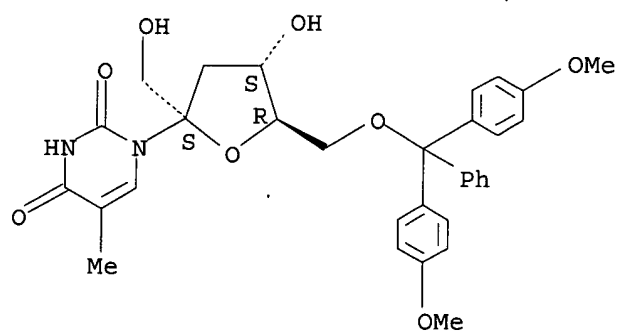
AB Two different building blocks derived from psicothymidine I were prepd. and used in the synthesis of modified oligodeoxyribonucleotides. The stability of these psicothymidine-contg. oligodeoxyribonucleotides against nucleases was demonstrated.

IT 153184-85-1P 153184-86-2P 153184-87-3P
153184-88-4P 153184-89-5P 153184-92-0P
153214-48-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(intermediate in prepn. of psicothymidine-contg. oligodeoxyribonucleotides)

RN 153184-85-1 CAPLUS
CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

09567863

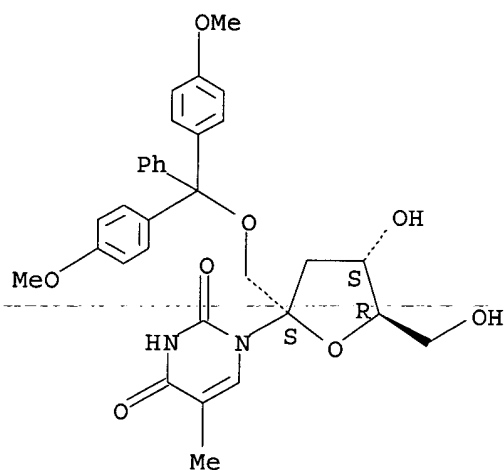
Absolute stereochemistry.



RN 153184-86-2 CAPLUS

CN Thymidine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

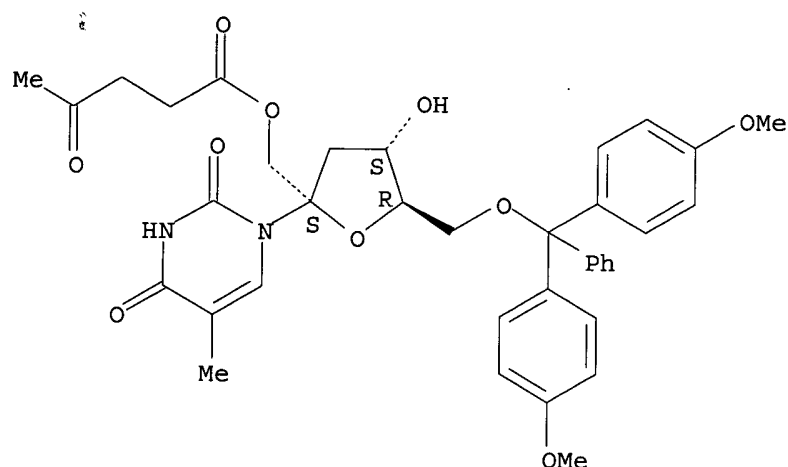


RN 153184-87-3 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-[[1,4-dioxopentyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

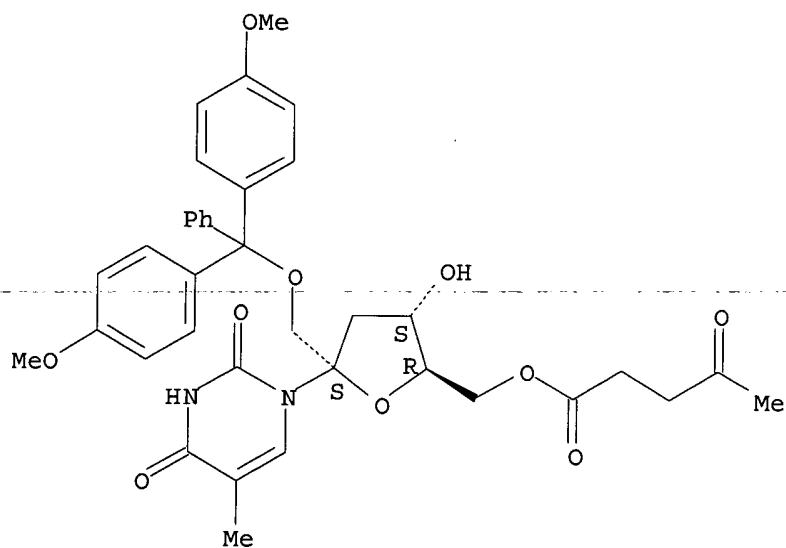
09567863



RN 153184-88-4 CAPLUS

CN Thymidine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-, 5'-(4-oxopentanoate) (9CI) (CA INDEX NAME)

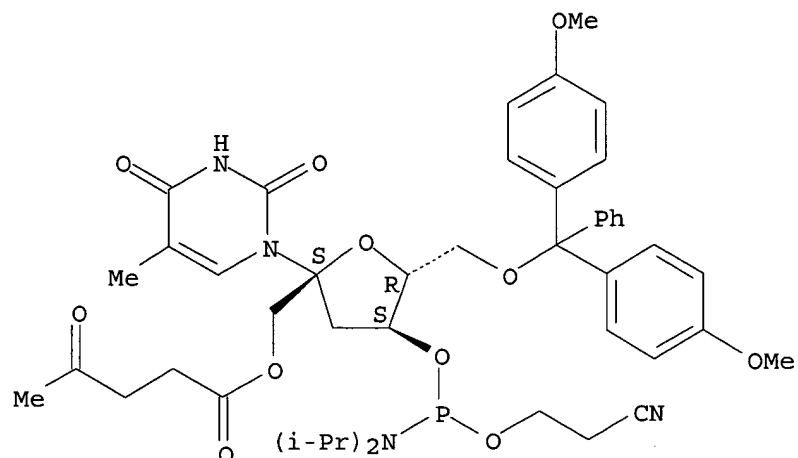
Absolute stereochemistry.



RN 153184-89-5 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-[[1,4-dioxopentyl]oxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

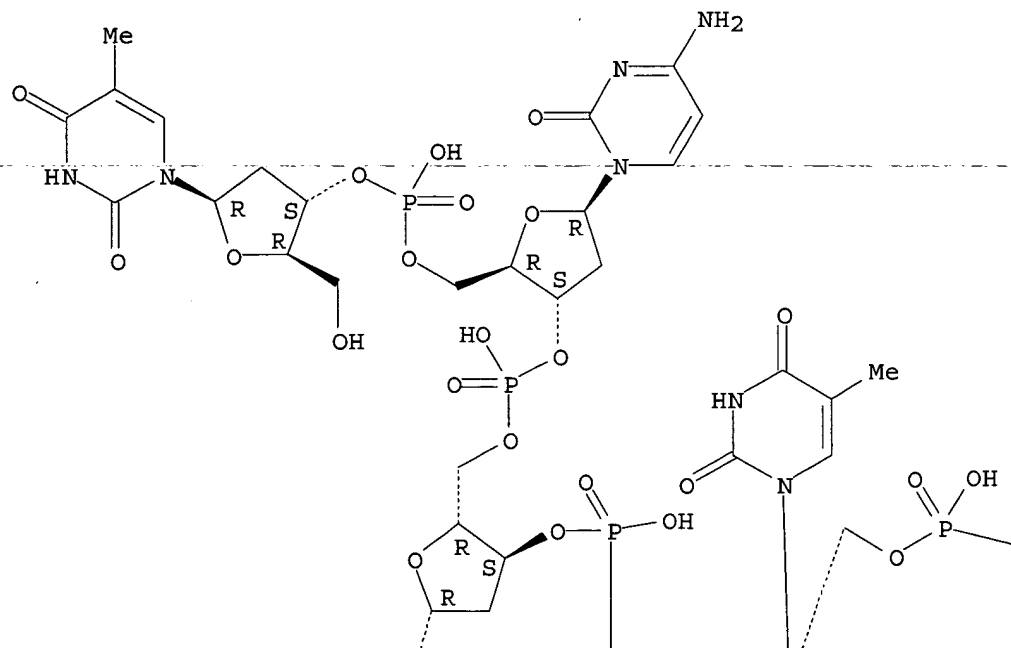


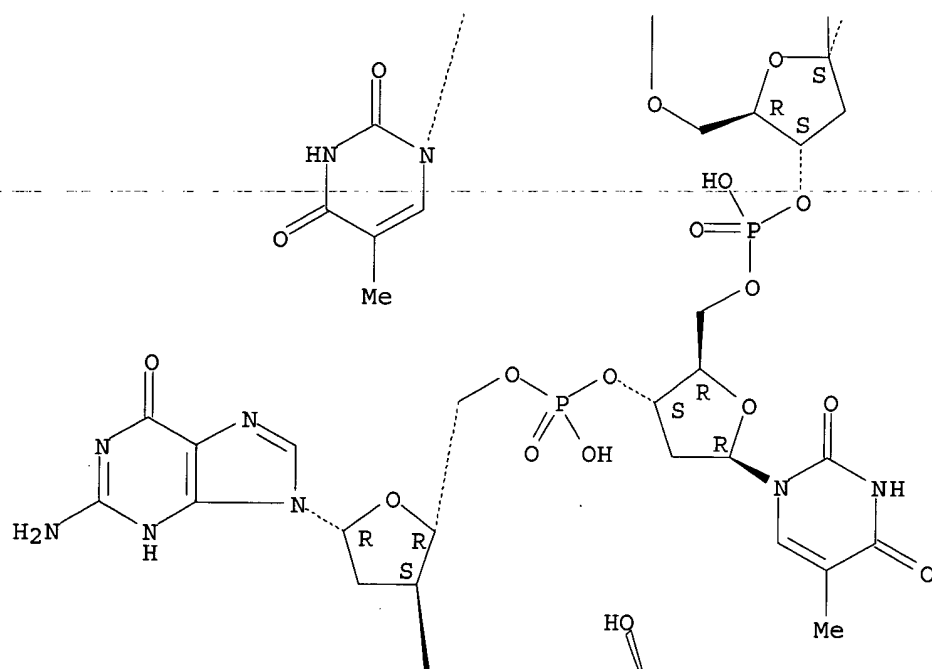
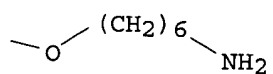
RN 153184-92-0 CAPLUS

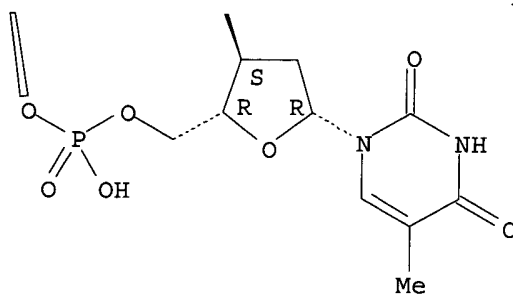
CN Thymidine, thymidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-
thymidylyl-(3'.fwdarw.5')-1'-[[[(6-aminohexyl)oxy]hydroxyphosphinyl]oxy]m
ethyl]thymidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-
(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

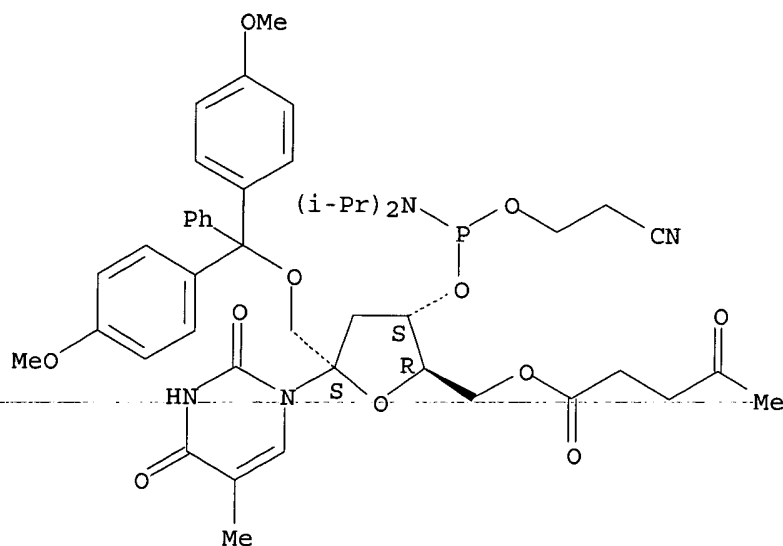






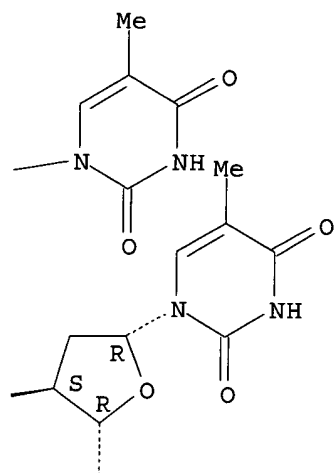
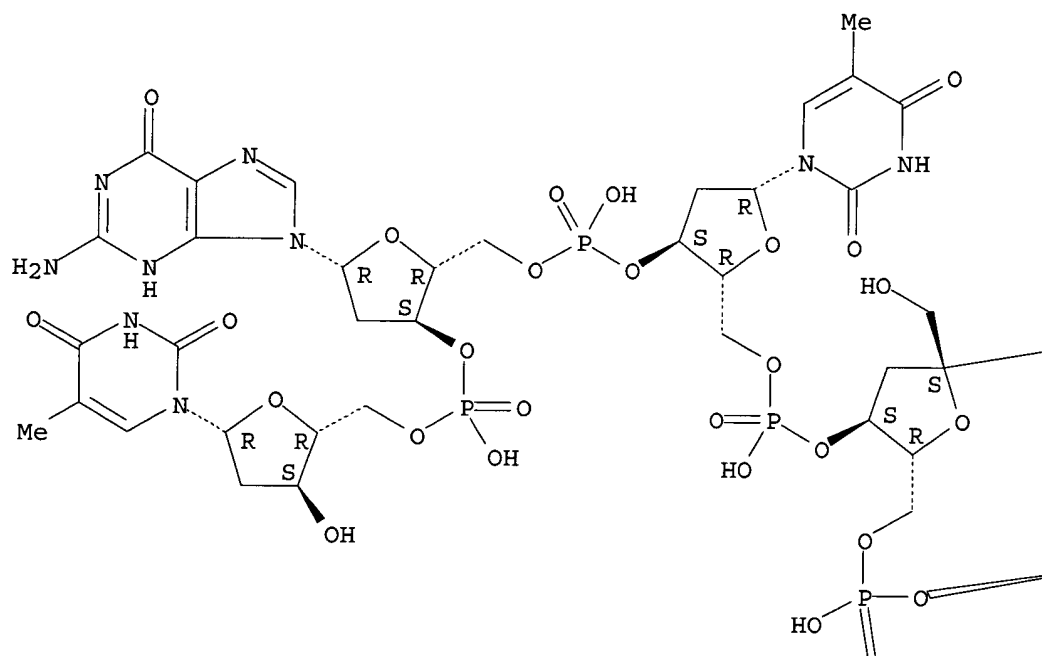
RN 153214-48-3 CAPLUS
 CN Thymidine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy)methyl]-,
 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] 5'-(4-oxopentanoate)
 (9CI) (CA INDEX NAME)

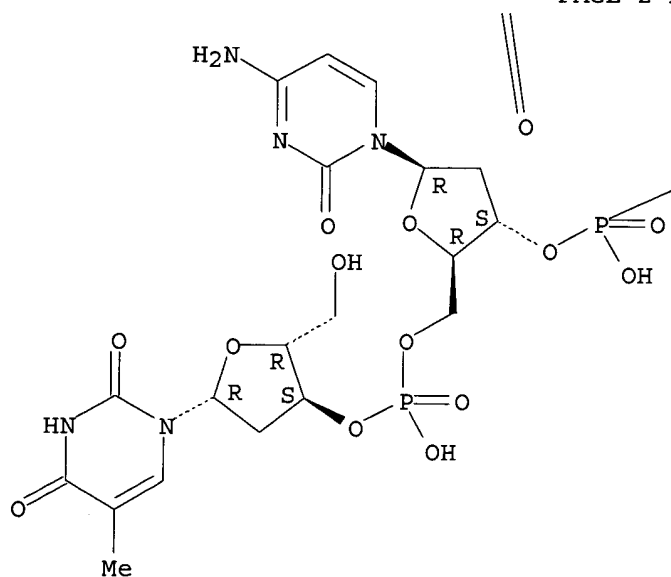
Absolute stereochemistry.



IT 153184-91-9P 153184-93-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 153184-91-9 CAPLUS
 CN Thymidine, thymidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-
 thymidylyl-(3'.fwdarw.5')-1'-(hydroxymethyl)thymidylyl-(3'.fwdarw.5')-
 thymidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.

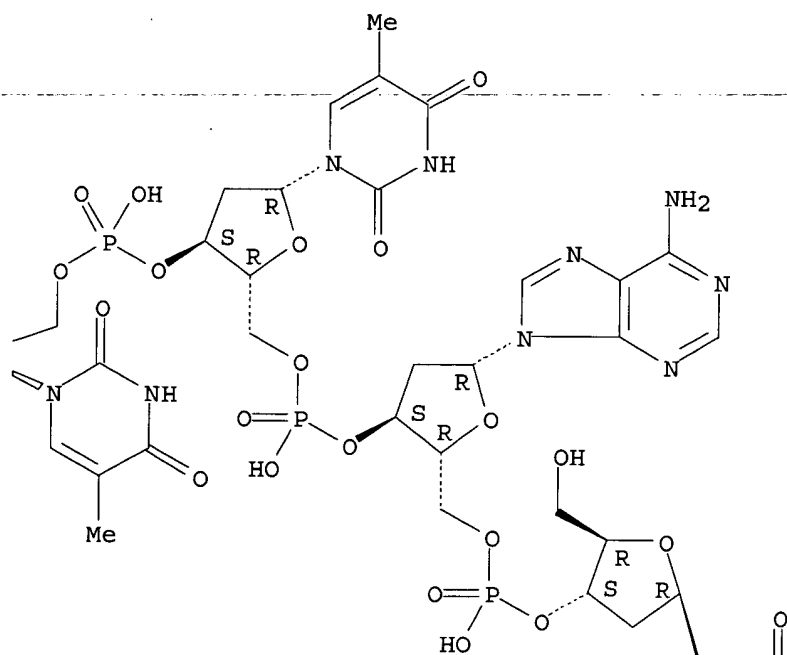
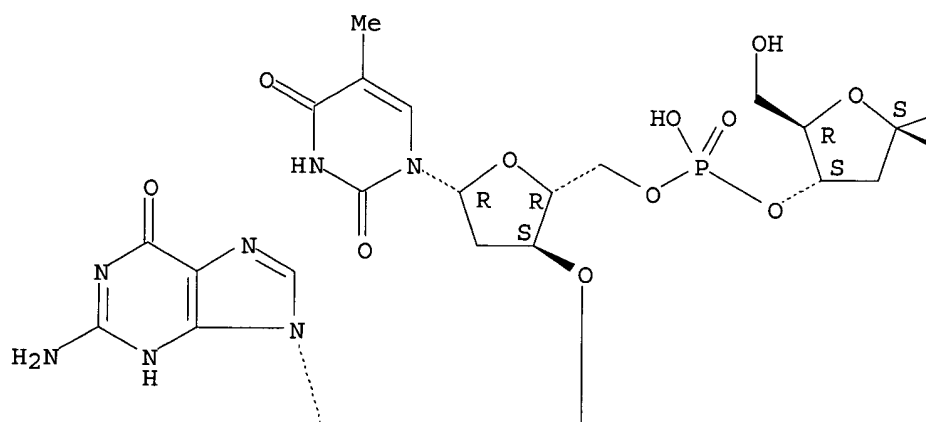


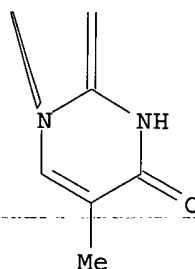
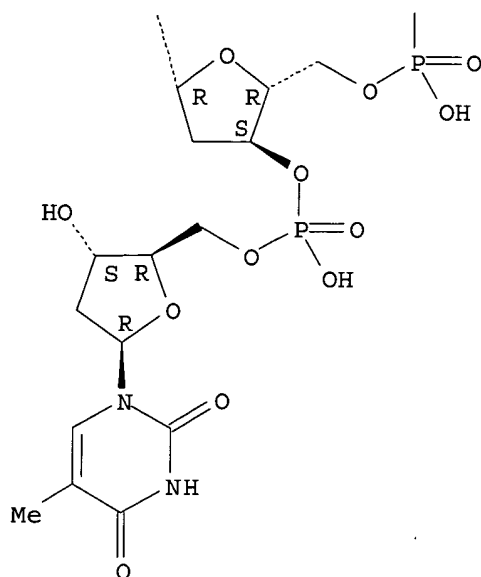


RN 153184-93-1 CAPLUS

CN Thymidine, thymidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-
thymidyloxymethylene-(3'.fwdarw.1')-thymidylyl-(3'.fwdarw.5')-thymidylyl-
(3'.fwdarw.5')-2'-deoxyguanylyl-(3'.fwdarw.5')- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





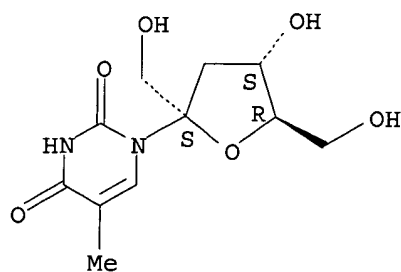
IT 153184-84-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant, in prepn. of psicothymidine-contg.
oligodeoxyribonucleotides)

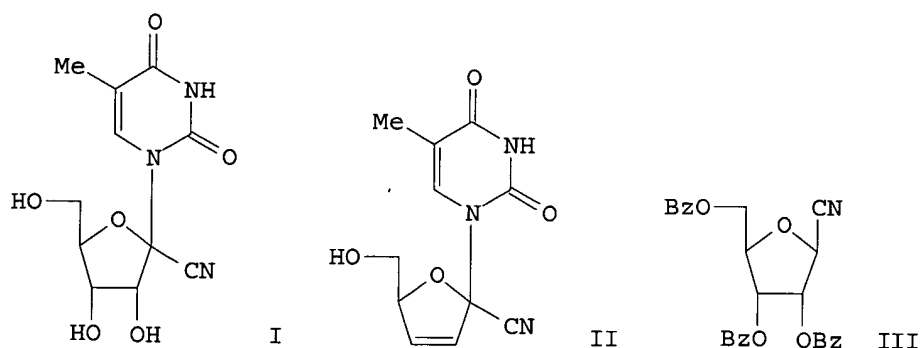
RN 153184-84-0 CAPLUS

CN Thymidine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



DN 120:77585
TI Synthesis and structure determination of the first 1'-C-cyano-.beta.-D-nucleosides
AU Uteza, Valerie; Chen, Guo Rong; Le Quan Tuoi, Jeremie; Descotes, Gerard; Fenet, Bernard; Grouiller, Annie
CS Lab. Chim. Org., Univ. Lyon I, Villeurbanne, 69622, Fr.
SO Tetrahedron (1993), 49(38), 8579-88
CODEN: TETRAB; ISSN: 0040-4020
DT Journal
LA English
OS CASREACT 120:77585
GI



AB Title nucleosides I and II were prepd. from cyano sugar III via
photobromination and condensation with silylated thymine.
IT **152039-38-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(intermediate in prepn. of C-cyano-.beta.-D-nucleosides)

RN **152039-38-8 CAPLUS**
CN Uridine, 1'-C-cyano-5'-O-[(1,1-dimethylethyl)dimethylsilyl]-5-methyl-
(9CI) (CA INDEX NAME)

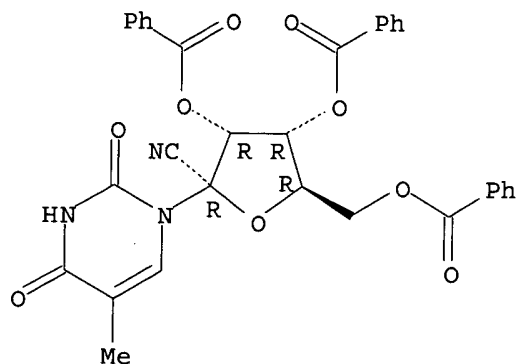
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IT      152039-42-4P
        RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
        (Reactant or reagent)
        (prepn. and deblocking of)
RN      152039-42-4  CAPLUS
CN      Uridine, 1'-C-cyano-5-methyl-, 2',3',5'-tribenzoate (9CI)  (CA INDEX NAME)

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Absolute stereochemistry.

09567863



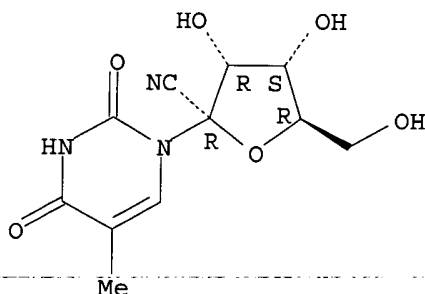
IT 149228-60-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and partial silylation of)

RN 149228-60-4 CAPLUS

CN Uridine, 1'-C-cyano-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 58 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1994:8893 CAPLUS

DN 120:8893

TI Conformational studies on some C1'-branched .beta.-D-nucleosides by
proton-NMR spectroscopy and molecular mechanics calculations

AU Plavec, J.; Fabre-Buet, V.; Uteza, V.; Grouiller, A.; Chattopadhyaya, J.

CS Biomed. Cent., Univ. Uppsala, Uppsala, Swed.

SO Journal of Biochemical and Biophysical Methods (1993), 26(4), 317-34

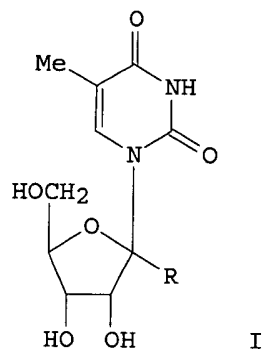
CODEN: JBBMDG; ISSN: 0165-022X

DT Journal

LA English

GI

09567863



AB Conformation of nucleosides I (R = CH₂OH, CN) by ¹H NMR and mol. mechanics calcns. using the AMBER force field are described.

IT 149228-60-4 151327-23-0

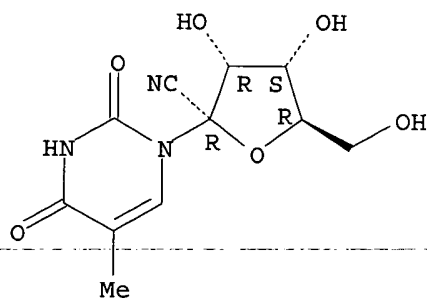
RL: PRP (Properties)

(conformation and mol. mechanics of)

RN 149228-60-4 CAPLUS

CN Uridine, 1'-C-cyano-5-methyl- (9CI) (CA INDEX NAME)

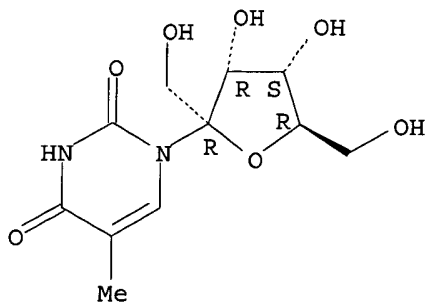
Absolute stereochemistry.



RN 151327-23-0 CAPLUS

CN Uridine, 1'-C-(hydroxymethyl)-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 59 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1993:650341 CAPLUS

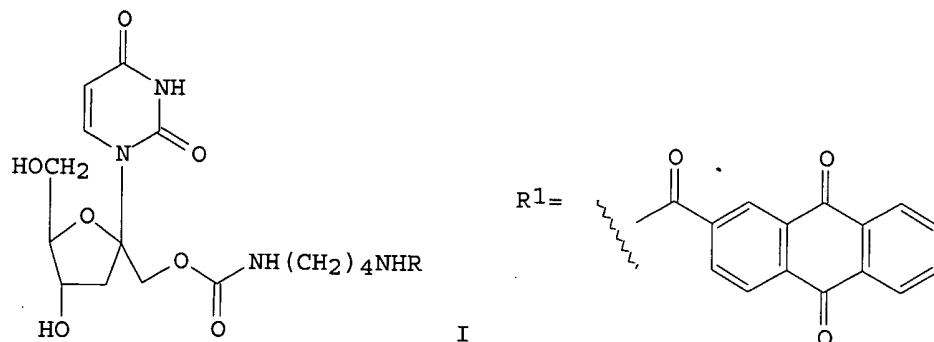
DN 119:250341

TI Nucleosides and nucleotides. 118. Synthesis of oligodeoxyribonucleotides containing a novel 2'-deoxyuridine analog that carries an aminoalkyl

09567863

tether at 1'-position; stabilization of duplex formation by an intercalating group accommodated in the minor groove

AU Dan, Akihito; Yoshimura, Yuichi; Ono, Akira; Matsuda, Akira
CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan
SO Bioorganic & Medicinal Chemistry Letters (1993), 3(4), 615-18
CODEN: BMCLE8; ISSN: 0960-894X
DT Journal
LA English
GI



AB A novel 2'-deoxyuridine analog I (R = H, Ac, R1) carrying an aminoalkyl tether at 1'-position of the sugar moiety was synthesized and incorporated into oligodeoxyribonucleotides, then an intercalating group was attached to the amino group. Duplexes, consisting of the oligodeoxyribonucleotides and a complementary strand, were more stable than a unmodified parent duplex.

IT 150880-73-2P 150880-74-3P 150880-75-4P

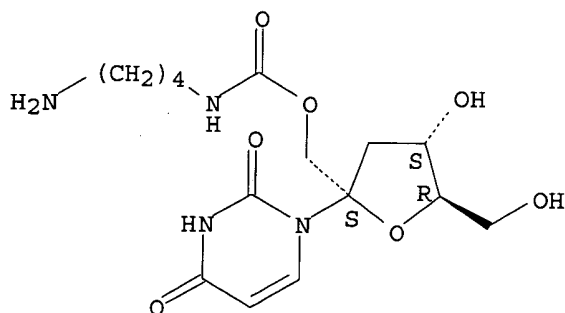
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and incorporation of, into oligodeoxyribonucleotides)

RN 150880-73-2 CAPLUS

CN Uridine, 1'-C-[[[[(4-aminobutyl)amino]carbonyl]oxy]methyl]-2'-deoxy- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

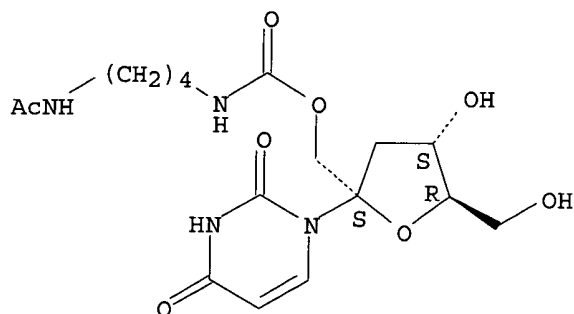


RN 150880-74-3 CAPLUS

CN Uridine, 1'-C-[[[[(4-(acetamino)butyl)amino]carbonyl]oxy]methyl]-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

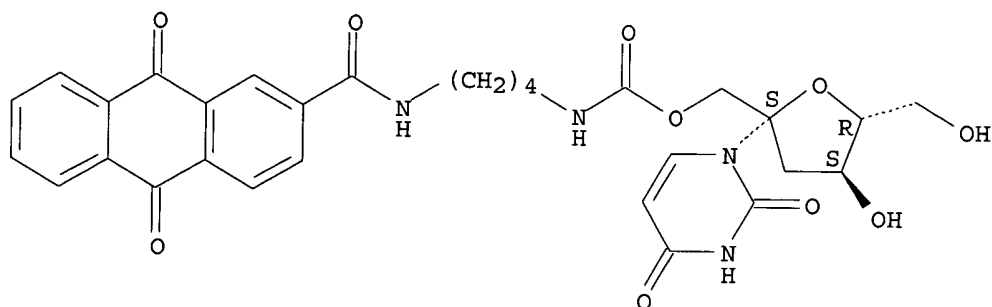
09567863



RN 150880-75-4 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[[[4-[[[(9,10-dihydro-9,10-dioxo-2-anthracenyl)carbonyl]amino]butyl]amino]carbonyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



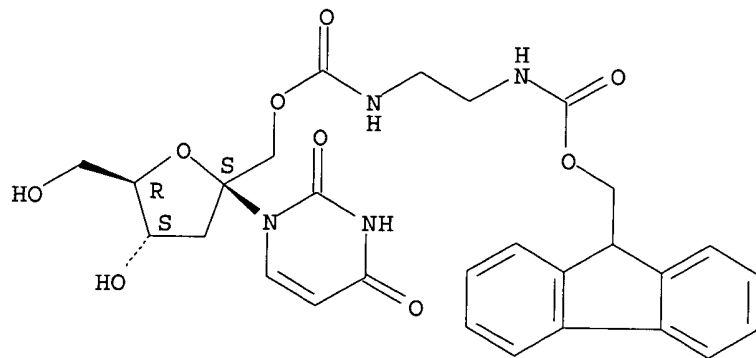
IT 152218-66-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and partial intercalation of)

RN 152218-66-1 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[[[2-[[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]ethyl]amino]carbonyl]oxy]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 150880-79-8P

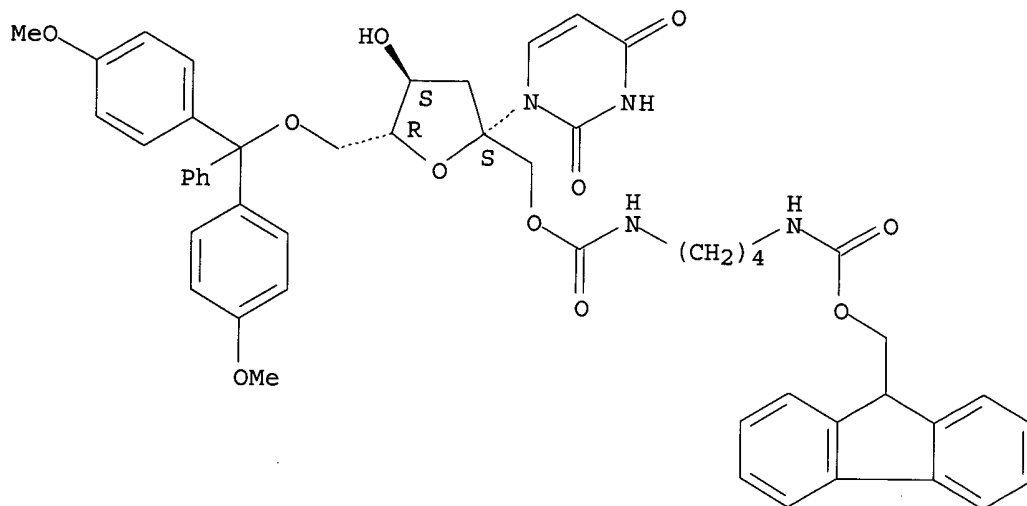
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and phosphoramidation of)

RN 150880-79-8 CAPLUS

09567863

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[12-(9H-fluoren-9-yl)-3,10-dioxo-2,11-dioxo-4,9-diazadodec-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 150880-80-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

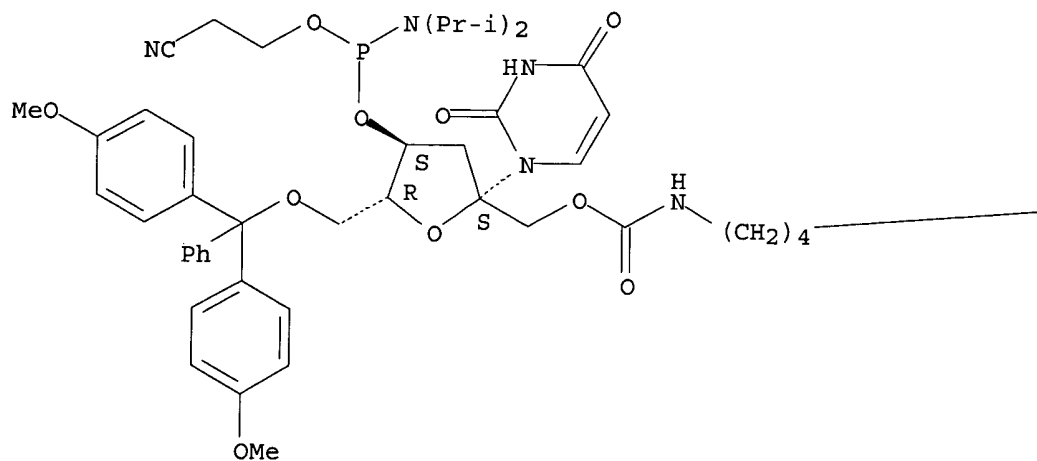
(prepn. and reaction of, in synthesis of oligodeoxyribonucleotides)

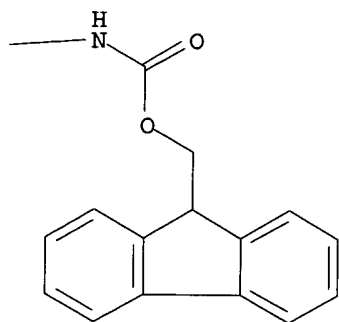
RN 150880-80-1 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[12-(9H-fluoren-9-yl)-3,10-dioxo-2,11-dioxo-4,9-diazadodec-1-yl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





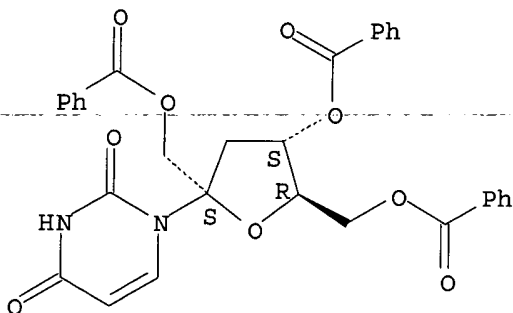
IT 55697-36-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and sequential debenzoylation and silylation of)

RN 55697-36-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 60 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1993:496032 CAPLUS

DN 119:96032

TI Novel p-toluenesulfonylation and thionocarbonylation of unprotected thymine nucleosides

AU Grouiller, Annine; Buet, Veronique; Uteza, Valerie; Descotes, Gerard
CS Lab. Chim. Organ., Univ. Lyon I, Villeurbanne, F-69622, Fr.

SO Synlett (1993), (3), 221-2

CODEN: SYNLES; ISSN: 0936-5214

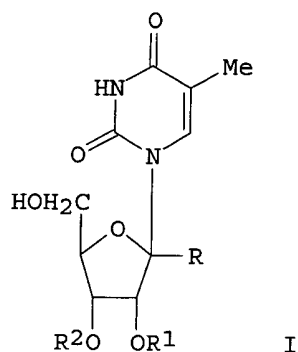
DT Journal

LA English

OS CASREACT 119:96032

GI

09567863



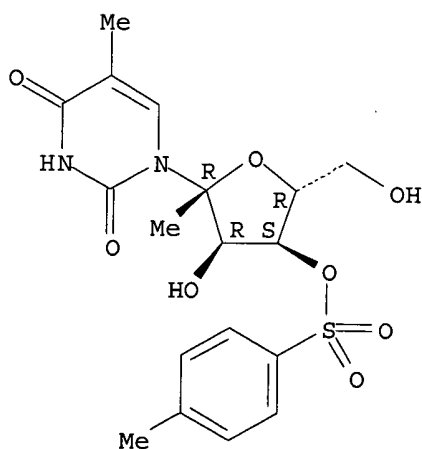
AB A new procedure involving the use of both dibutyltin oxide and a quaternary ammonium salt along with p-toluenesulfonyl chloride or phenoxythiocarbonyl chloride leads in good yields to the desired monotosylate I (R = R2 = H, R1 = SO2C6H4Me-4) or to the 2',3'-O-cyclic thiocarbonate I (R = H, R1R2 = C:S) of thymine nucleosides without prior modification of any hydroxyl group. It is noteworthy that the 5-methyluridine (I; R - R2 = H) tosylation occurs regioselectively at the 2'-position, while the 3'-O-tosylate, i.e. I (R = Me, CN, R1 = H, R2 = SO2C6H4Me-4), is formed when 5-methyluridine is substituted on 1' by a Me (or cyano) group.

IT 149228-62-6P, 1',5-Dimethyluridine 3'-tosylate
 149228-63-7P, 1'-Cyano-5-methyluridine 3'-O-tosylate
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, regioselectivity in)

RN 149228-62-6 CAPLUS

CN Uridine, 5-methyl-1'-C-methyl-, 3'-(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

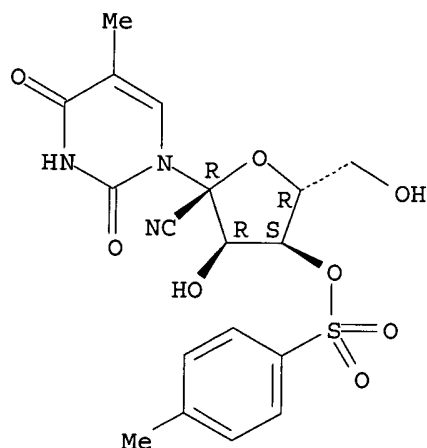


RN 149228-63-7 CAPLUS

CN Uridine, 1'-C-cyano-5-methyl-, 3'-(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

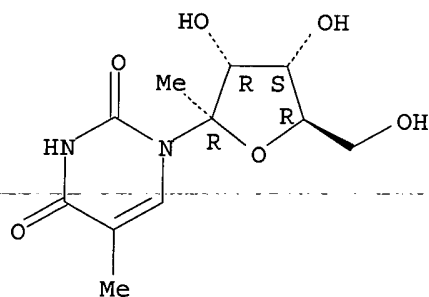
Absolute stereochemistry.

09567863



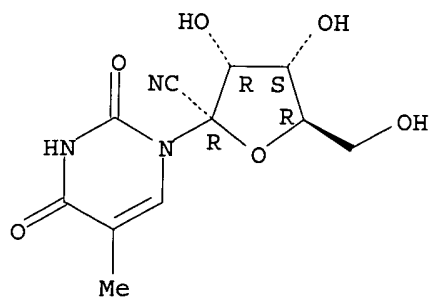
IT 34441-68-4, 1',5-Dimethyluridine 149228-60-4,
1'-Cyano-5-methyluridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(regioselective tosylation and thiocarbonylation of)
RN 34441-68-4 CAPLUS
CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 149228-60-4 CAPLUS
CN Uridine, 1'-C-cyano-5-methyl- (9CI) (CA INDEX NAME)

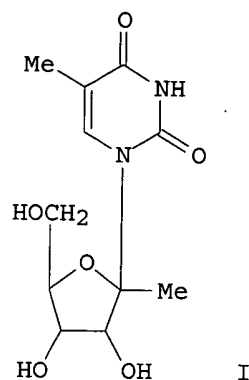
Absolute stereochemistry.



L3 ANSWER 61 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1993:124932 CAPLUS
DN 118:124932

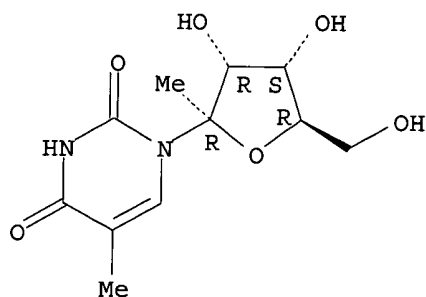
09567863

TI Structural studies on a psicofuranosyl nucleoside, a potential antiviral agent
AU Grouiller, A.; Faivre-Buet, V.; Chattopadhyaya, J.
CS Lab. Chim. Org. II, Univ. Lyon 1, Villeurbanne, 69622, Fr.
SO Journal de Pharmacie de Belgique (1992), 47(4), 381-3
CODEN: JPBEAJ; ISSN: 0047-2166
DT Journal
LA French
GI



AB Conformational anal. of a novel nucleoside analog I by ^1H NMR studies and mol. mechanics MM2, is described. The aglycon is in anti conformation relative to the sugar moiety.
IT 34441-68-4
RL: PRP (Properties)
(conformation of)
RN 34441-68-4 CAPLUS
CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

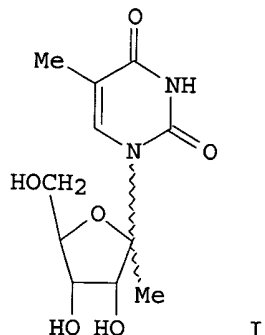
Absolute stereochemistry.



L3 ANSWER 62 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1993:102382 CAPLUS
DN 118:102382
TI Synthesis of thymine nucleosides derived from 1-deoxy-D-psicofuranose
AU Faivre-Buet, Veronique; Grouiller, Annie; Descotes, Gerard
CS Lab. Chim. Org. II, Univ. Lyon I, Villeurbanne, 69622, Fr.
SO Nucleosides & Nucleotides (1992), 11(9), 1651-60
CODEN: NUNUD5; ISSN: 0732-8311
DT Journal
LA English

09567863

GI



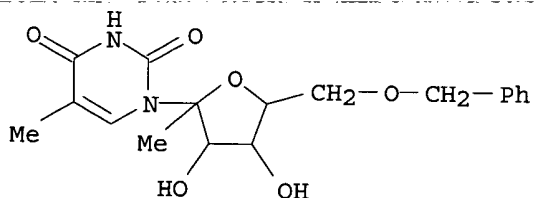
AB The use of D-(+)-ribonic .gamma.-lactone as a chiral synthon leads to an efficient synthesis of 1-deoxy-D-psicofuranose. Condensation of its acetyl deriv. with silylated thymine, followed by deprotection affords an anomeric mixt. of ketosyl nucleoside I (predominantly the .beta.-anomer) in an improved overall yield of 49%.

IT 144080-58-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and debenzylation of)

RN 144080-58-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-6-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)



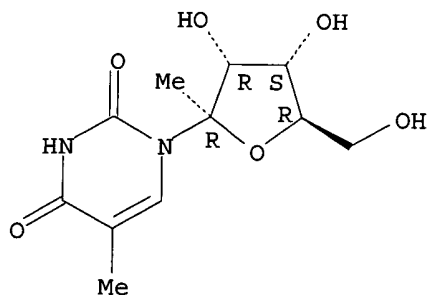
IT 34441-68-4P 145662-64-2P 145662-65-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

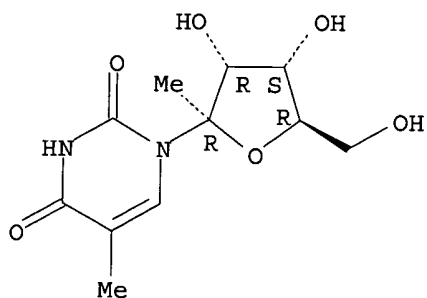
RN 34441-68-4 CAPLUS

CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



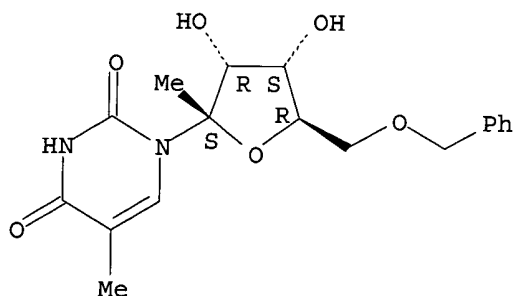
09567863



RN 145662-64-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-6-O-(phenylmethyl)-.alpha.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

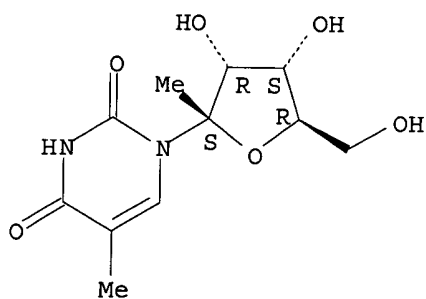
Absolute stereochemistry.



RN 145662-65-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1-deoxy-.alpha.-D-psicofuranosyl)-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 63 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1993:102369 CAPLUS

DN 118:102369

TI Nucleosides and nucleotides. 108. Synthesis and optical properties of syn-fixed carbon-bridged pyrimidine cyclonucleosides

AU Yoshimura, Yuichi; Otter, Brian A.; Ueda, Tohru; Matsuda, Akira

CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan

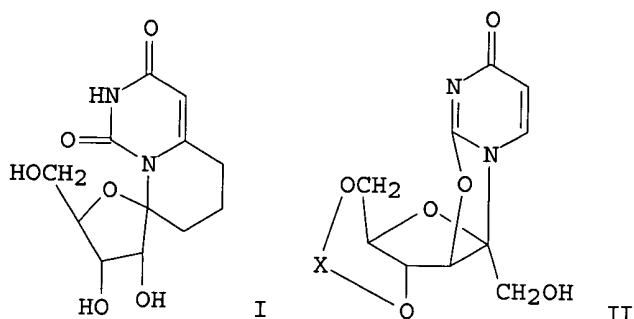
SO Chemical & Pharmaceutical Bulletin (1992), 40(7), 1761-9

CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

09567863

LA English
OS CASREACT 118:102369
GI



AB A carbon-bridged cyclouridine I fixed in the syn-conformation, was synthesized from D-fructose via radical cyclization of the 1'-iodopropyl deriv. of 5-chlorouridine. Two addnl. carbon-units were introduced at the 1'-position of anhydrouridine II (X = 1,1,3,3-tetraisopropylidisiloxan-1,3-diyl) and inversion of the 2' hydroxyl group was achieved by sequential oxidn.-redn. reactions. These results suggest that the crit. region in which the CD Cotton effect changes from neg. to pos. is present in the syn region where I is located. Correlation of the magnitude and the direction of the sign of the CD Cotton effect and the torsion angle (.chi.) is also discussed.

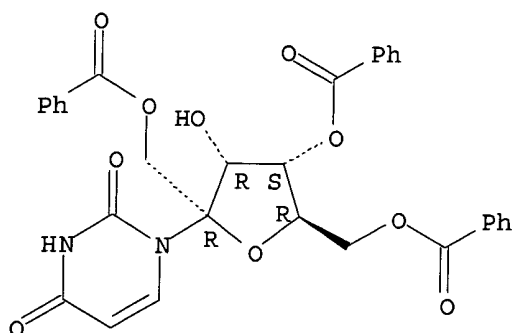
IT 145427-38-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and debenzoylation of)

RN 145427-38-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 137273-01-9P 137273-02-0P

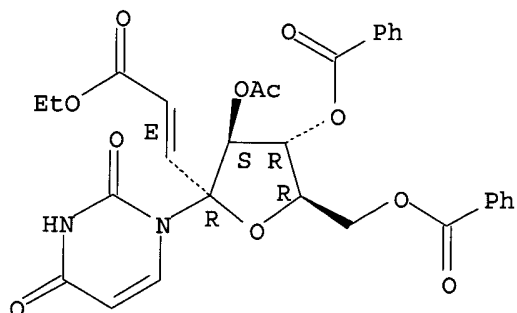
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of)

RN 137273-01-9 CAPLUS

CN .beta.-D-arabino-Oct-2-en-4-ulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, ethyl ester, 5-acetate 6,8-dibenzoate, (2E)- (9CI) (CA INDEX NAME)

09567863

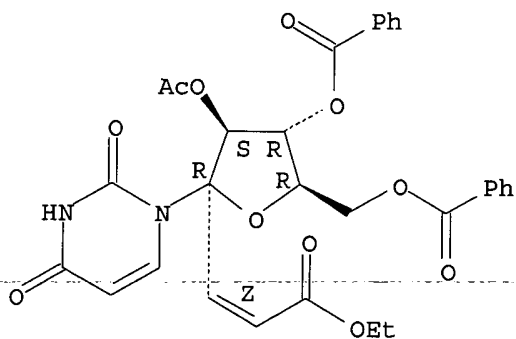
Absolute stereochemistry.
Double bond geometry as shown.



RN 137273-02-0 CAPLUS

CN .beta.-D-arabino-Oct-2-en-4-ulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, ethyl ester, 5-acetate 6,8-dibenzoate, (2Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



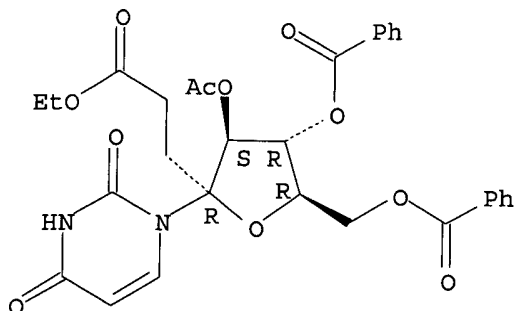
IT 137272-91-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and sequential deblocking and partial silylation of)

RN 137272-91-4 CAPLUS

CN .beta.-D-arabino-4-Octulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, ethyl ester, 5-acetate 6,8-dibenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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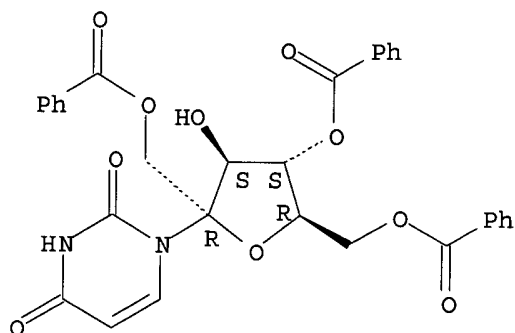
IT 145396-32-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and sequential oxidn. and stereoselective redn. of)

RN 145396-32-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-.beta.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



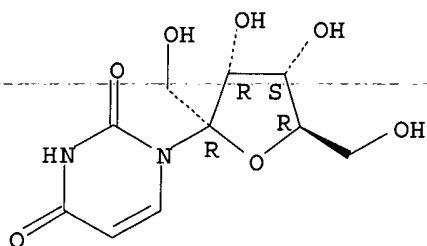
IT 53263-33-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 53263-33-5 CAPLUS

CN Uridine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 64 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1992:592239 CAPLUS

DN 117:192239

TI Synthesis of 1'-deoxy-psicofuranosyl-deoxynucleosides as potential anti-HIV agents

AU Faivre-Buet, Veronique; Grouiller, Annie; Descotes, Gerard

CS Lab. Chim. Org. II, Univ. Claude Bernard Lyon I, Villeurbanne, 69622, Fr.

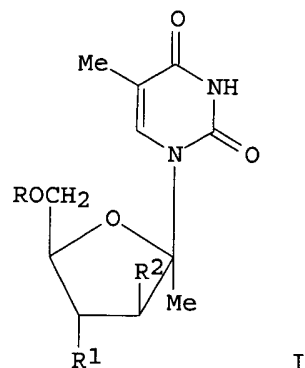
SO Nucleosides & Nucleotides (1992), 11(7), 1411-24

CODEN: NUNUD5; ISSN: 0732-8311

DT Journal

LA English

GI



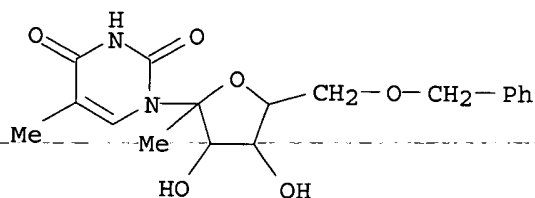
AB Various routes to the 1-deoxy-psicofuranosyl nucleoside analogs I ($R = R_2 = H$, $R_1 = N_3, H$; $R_1R_2 = \text{bond}$), related to anti-HIV agents, are reported. Two routes afforded I ($R = \text{CH}_2\text{Ph}$, $R_1 = N_3, \text{NH}_2$, $R_2 = H$; $R_1R_2 = \text{bond}$). Only I ($R = \text{CH}_2\text{Ph}$, $R_1R_2 = O$; $R_1 = H$, $R_2 = \text{OH}, H$) were able to be deprotected. I are devoid of virucidal activity.

IT **144080-58-0**

RL: RCT (Reactant); RACT (Reactant or reagent)
(mesylation of)

RN 144080-58-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-6-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

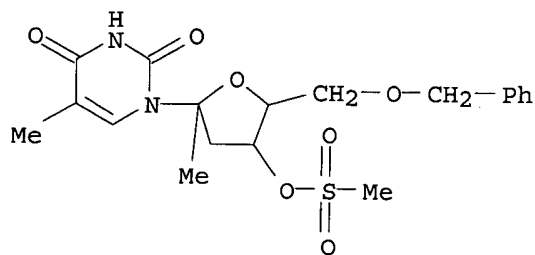


IT **144080-61-5P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and elimination of mesylate from)

RN 144080-61-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,3-dideoxy-4-O-(methylsulfonyl)-6-O-(phenylmethyl)-.beta.-D-erythro-2-hexulofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)



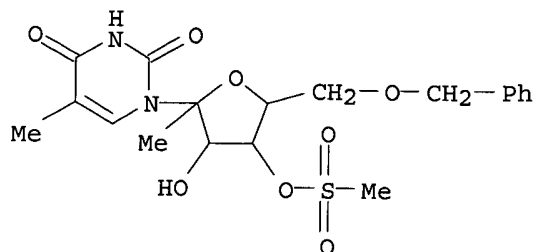
IT **144080-59-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and reaction of, with thiochloroformate)

09567863

RN 144080-59-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-4-O-(methylsulfonyl)-6-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

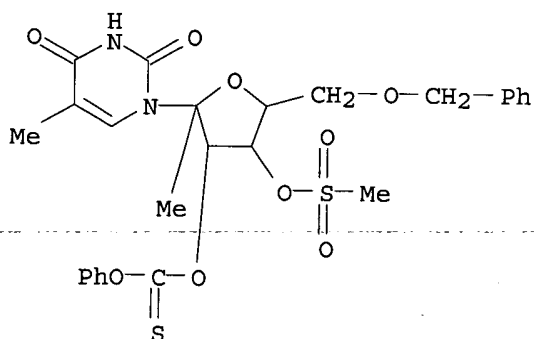


IT 144080-60-4P 144080-71-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and redn. of)

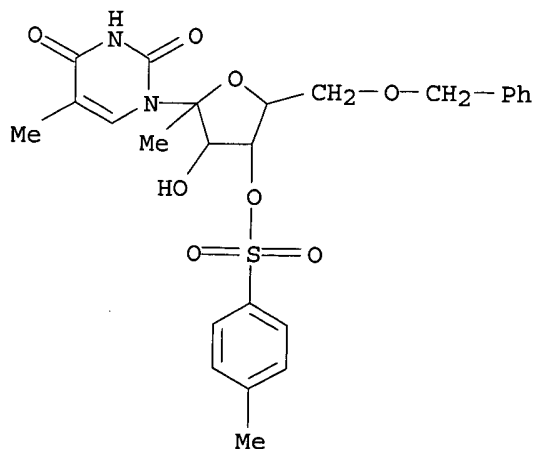
RN 144080-60-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-4-O-(methylsulfonyl)-3-O-(phenoxythioxomethyl)-6-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)



RN 144080-71-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-4-O-[(4-methylphenyl)sulfonyl]-6-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)



L3 ANSWER 65 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1992:174648 CAPLUS
 DN 116:174648
 TI Synthesis of 9-(1-deoxy-4-phosphono-.beta.-D-psicofuranosyl)-1,9-dihydro-6H-purin-6-one as a potential transition state analog inhibitor of purine nucleoside phosphorylase.
 AU Elliott, Robert D.; Niwas, Shri; Riordan, James M.; Montgomery, John A.; Secrist, John A., III
 CS Kettering-Meyer Lab., South. Res. Inst., Birmingham, AL, 35255-5305, USA
 SO Nucleosides & Nucleotides (1992), 11(1), 97-119
 CODEN: NUNUD5; ISSN: 0732-8311
 DT Journal
 LA English
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A fifteen-step synthesis of the proposed purine nucleoside phosphorylase (PNP) transition state analog inhibitor 9-(1-deoxy-1-phosphono-.beta.-D-psicofuranosyl)-1,9-dihydro-H-purine-6-one (I) is described starting with 1,2:4,5-diisopropylidene-.beta.-D-psicopyranose (II). Catalytic hydrogenation of 9-[3-O-benzyl-1-(dibenzyloxyphosphinyl)-1-deoxy-.beta.-D-psicofuranosyl]-6-benzyloxypurine (III) under basic conditions gave the unstable I which was found to have a half-life of 39 min at pH 7 and 81 min at pH 8. The low PNP inhibitory activity found for I (IC₅₀ = 25 .mu.M at 50 mM phosphate concn.) may be due entirely to the presence of the decompn. product hypoxanthine which is itself an inhibitor (IC₅₀ = 8.6 .mu.M).

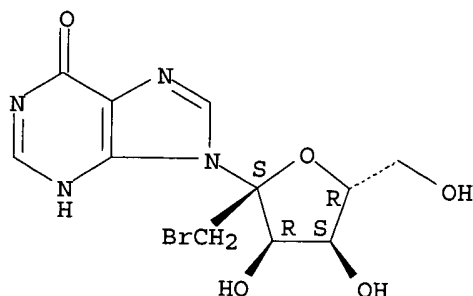
IT 139764-72-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and attempted Michaelis-Arbuzov reaction of)

RN 139764-72-0 CAPLUS

CN 6H-Purin-6-one, 9-(1-bromo-1-deoxy-.beta.-D-psicofuranosyl)-1,9-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 139764-84-4P

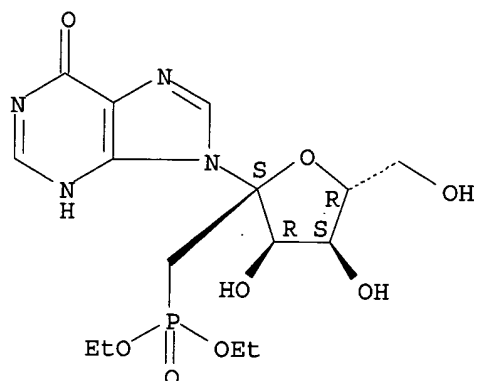
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and attempted deesterification of)

RN 139764-84-4 CAPLUS

CN 6H-Purin-6-one, 9-[1-deoxy-1-(diethoxyphosphinyl)-.beta.-D-psicofuranosyl]-1,9-dihydro- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.



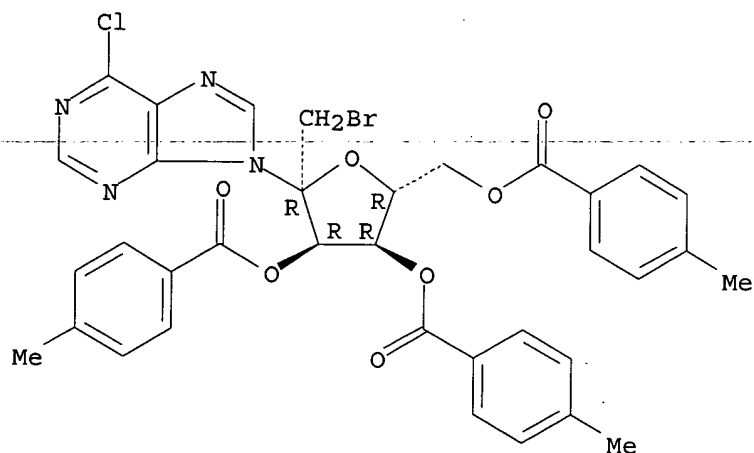
IT 139764-67-3P 139764-76-4P 139764-91-3P
139764-92-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and deacylation-benzyloxylation of)

RN 139764-67-3 CAPLUS

CN 9H-Purine, 9-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.alpha.-D-psicofuranosyl]-6-chloro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

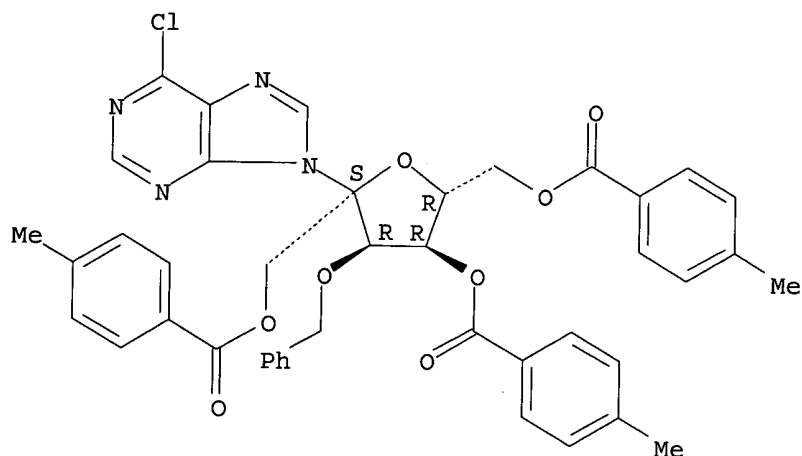


RN 139764-76-4 CAPLUS

CN 9H-Purine, 6-chloro-9-[1,4,6-tris-O-(4-methylbenzoyl)-3-O-(phenylmethyl)-.alpha.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

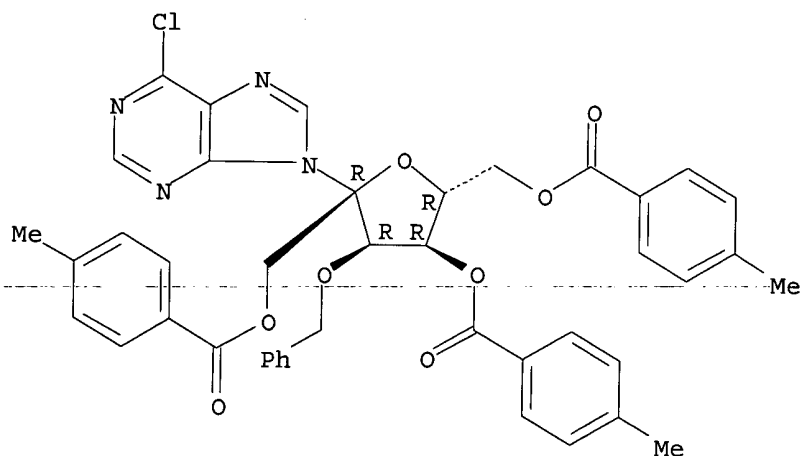
09567863



RN 139764-91-3 CAPLUS

CN 9H-Purine, 6-chloro-9-[1,4,6-tris-O-(4-methylbenzoyl)-3-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

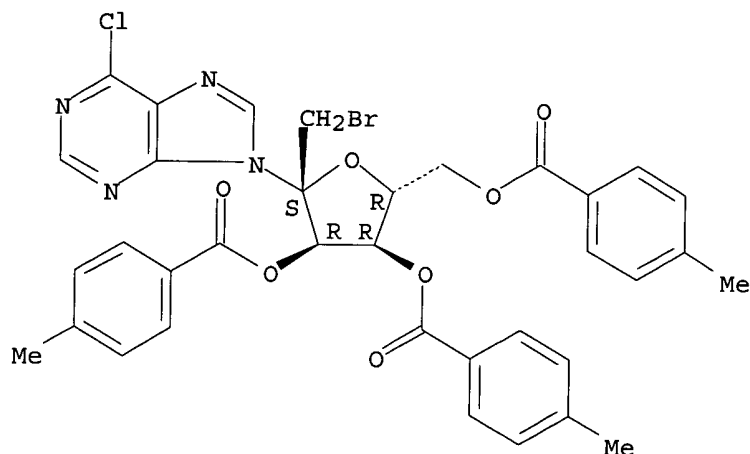


RN 139764-92-4 CAPLUS

CN 9H-Purine, 9-[1-bromo-1-deoxy-3,4,6-tris-O-(4-methylbenzoyl)-.beta.-D-psicofuranosyl]-6-chloro-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



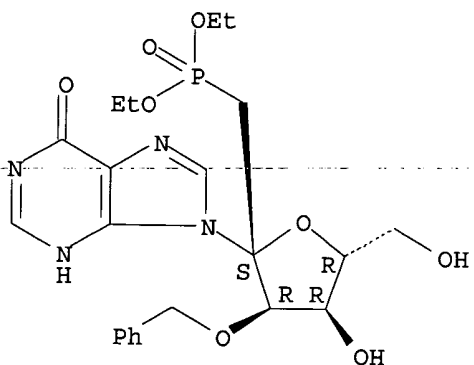
IT 139764-83-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and hydrogenolysis of)

RN 139764-83-3 CAPLUS

CN 6H-Purin-6-one, 9-[1-deoxy-1-(diethoxyphosphinyl)-3-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-1,9-dihydro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 139764-90-2P

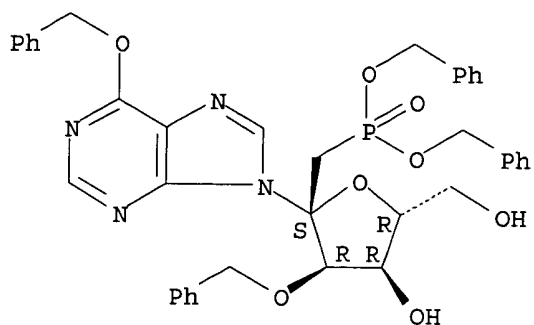
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and partial hydrogenolysis of)

RN 139764-90-2 CAPLUS

CN 9H-Purine, 9-[1-[bis(phenylmethoxy)phosphinyl]-1-deoxy-3-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-6-(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



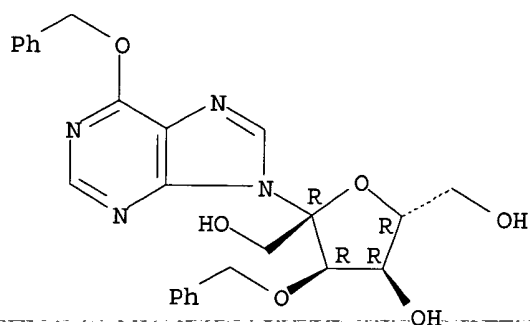
IT 139764-77-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and silylation of, with dichlorotetraisopropylidisiloxane)

RN 139764-77-5 CAPLUS

CN 9H-Purine, 6-(phenylmethoxy)-9-[3-O-(phenylmethoxy)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



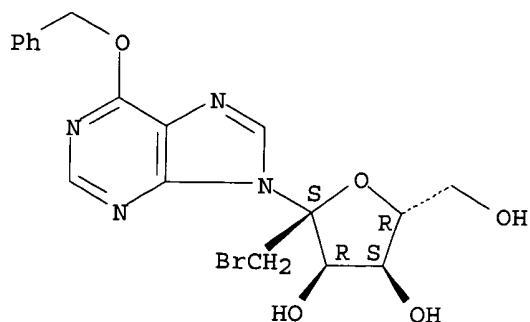
IT 139764-68-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and O-debenzylation of)

RN 139764-68-4 CAPLUS

CN 9H-Purine, 9-(1-bromo-1-deoxy-.beta.-D-psicofuranosyl)-6-(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 140140-98-3P 140140-99-4P

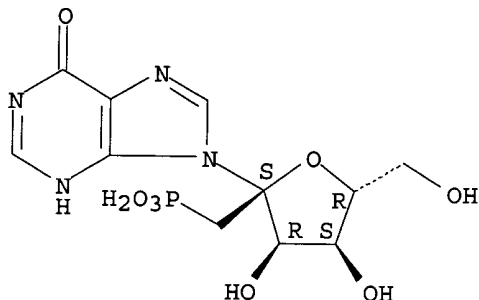
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as purine nucleoside phosphorylase inhibitor)

09567863

RN 140140-98-3 CAPLUS

CN 6H-Purin-6-one, 9-(1-deoxy-1-phosphono-.beta.-D-psicofuranosyl)-1,9-dihydro-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

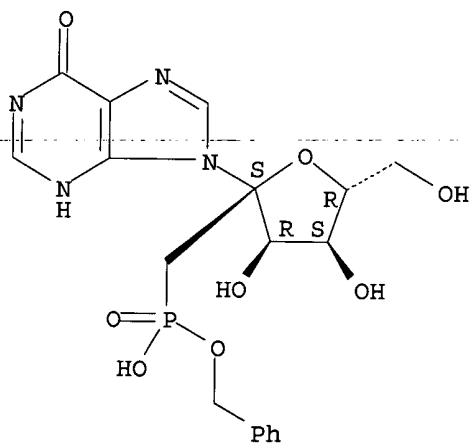


● NH₃

RN 140140-99-4 CAPLUS

CN 6H-Purin-6-one, 9-[1-deoxy-1-[hydroxy(phenylmethoxy)phosphinyl]-.beta.-D-psicofuranosyl]-1,9-dihydro-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● NH₃

L3 ANSWER 66 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1992:84025 CAPLUS

DN 116:84025

TI Furanoside C-glycosides from an O-methyl pyranoside an unexpected .beta.-hydroxy-1,3-dithiane rearrangement

AU Krohn, Karsten; Heins, Heidi

CS Inst. Org. Chem., TU Braunschweig, Braunschweig, D-3300, Germany

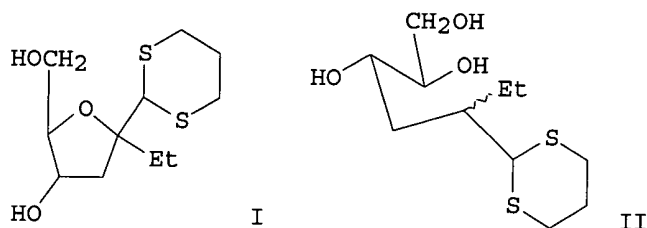
SO Journal of Carbohydrate Chemistry (1991), 10(5), 917-22

CODEN: JCACDM; ISSN: 0732-8303

DT Journal

09567863

LA English
OS CASREACT 116:84025
GI



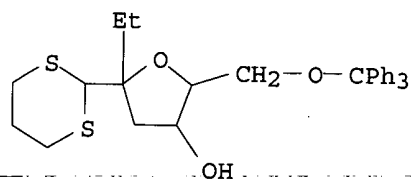
AB Acid-catalyzed thioacetalization of Me 3-deoxy-2-C-ethylribopyranoside proceeds abnormally giving rise, to the formation of cyclized and reduced products I and II.

IT **138688-45-6P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and oxidn. of)

RN 138688-45-6 CAPLUS

CN D-ribo-Hexose, 2,5-anhydro-3-deoxy-2-C-ethyl-6-O-(triphenylmethyl)-, cyclic 1,3-propanediyl dithioacetal (9CI) (CA INDEX NAME)

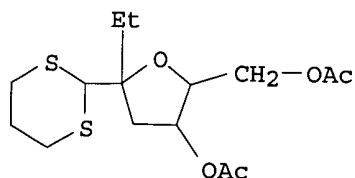


IT **138688-44-5P 138688-46-7P 138752-84-8P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 138688-44-5 CAPLUS

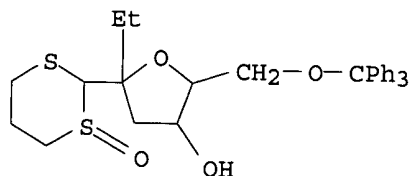
CN D-ribo-Hexose, 2,5-anhydro-3-deoxy-2-C-ethyl-, cyclic 1,3-propanediyl dithioacetal, diacetate (9CI) (CA INDEX NAME)



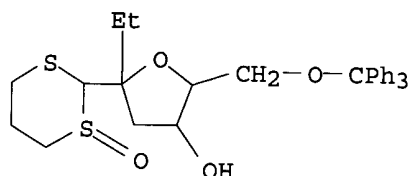
RN 138688-46-7 CAPLUS

CN D-ribo-Hexose, 2,5-anhydro-3-deoxy-2-C-ethyl-6-O-(triphenylmethyl)-, cyclic 1,3-propanediyl dithioacetal, S-oxide (9CI) (CA INDEX NAME)

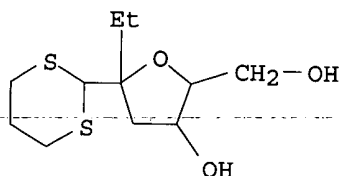
09567863



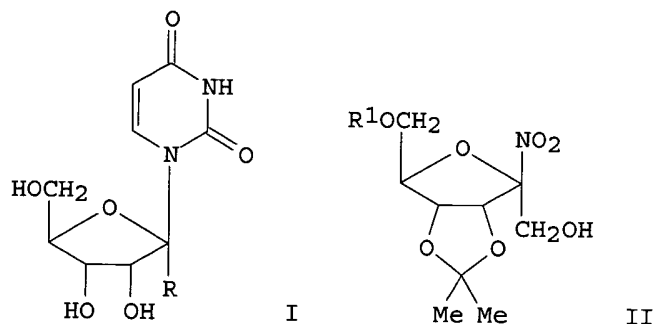
RN 138752-84-8 CAPLUS
CN D-ribo-Hexose, 2,5-anhydro-3-deoxy-2-C-ethyl-6-O-(triphenylmethyl)-, cyclic 1,3-propanediyl dithioacetal, S-oxide (9CI) (CA INDEX NAME)



IT **138688-43-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn., acetylation, and tritylation of)
RN 138688-43-4 CAPLUS
CN D-ribo-Hexose, 2,5-anhydro-3-deoxy-2-C-ethyl-, cyclic 1,3-propanediyl dithioacetal (9CI) (CA INDEX NAME)



L3 ANSWER 67 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1992:41962 CAPLUS
DN 116:41962
TI Deoxy nitrosugars. 17. Synthesis of ketose-derived nucleosides from 1-deoxy-1-nitroribose
AU Mahmood, Khalid; Vasella, Andrea; Bernet, Bruno
CS Org.-Chem. Inst., Univ. Zurich, Zurich, CH-8057, Switz.
SO Helvetica Chimica Acta (1991), 74(7), 1555-84
CODEN: HCACAV; ISSN: 0018-019X
DT Journal
LA English
GI



AB A new approach to the synthesis of purine and pyrimidinedione nucleosides, e.g. I (R = CH₂OH, CH₂CH₂CN, CH:CHCO₂H), from 1-deoxy-1-nitroribose, is described. The structure and conformation of these nucleosides are examd. The crystal structure of deoxynitropsicofuranose II (R₁ = pivaloyl) was detd. by x-ray diffraction techniques.

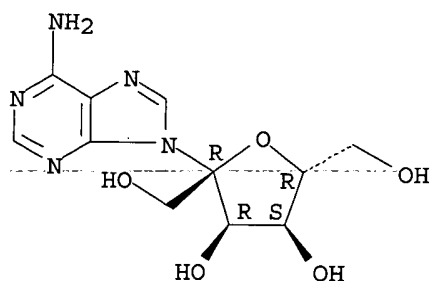
IT 1874-54-0P 53263-33-5P 138348-81-9P
138348-82-0P 138348-87-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and conformation of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

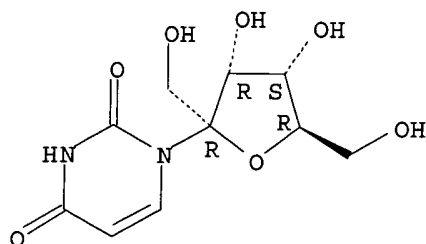
Absolute stereochemistry.



RN 53263-33-5 CAPLUS

CN Uridine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

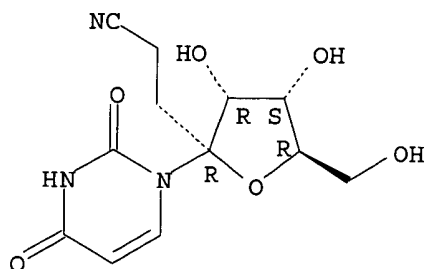


RN 138348-81-9 CAPLUS

CN .beta.-D-ribo-4-Octulofuranosononitrile, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

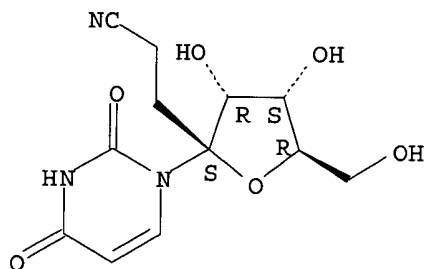
09567863



RN 138348-82-0 CAPLUS

CN .alpha.-D-ribo-4-Octulofuranosononitrile, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

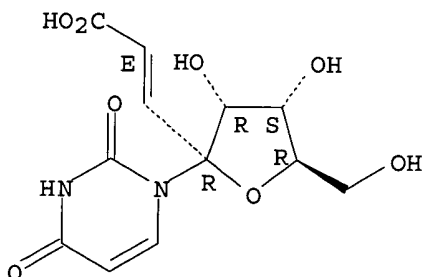


RN 138348-87-5 CAPLUS

CN .beta.-D-ribo-Oct-2-en-4-ulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 138348-72-8P

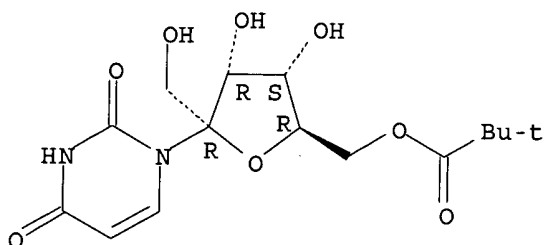
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deacylation of)

RN 138348-72-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[6-O-(2,2-dimethyl-1-oxopropyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



IT 138348-76-2P 138348-93-3P

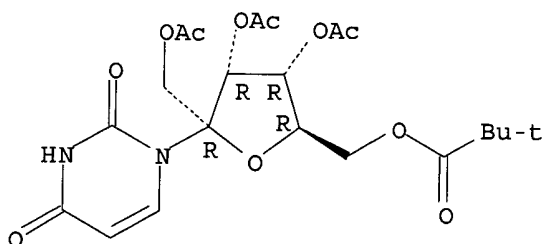
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and deblocking of)

RN 138348-76-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,3,4-tri-O-acetyl-6-O-(2,2-dimethyl-1-oxopropyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

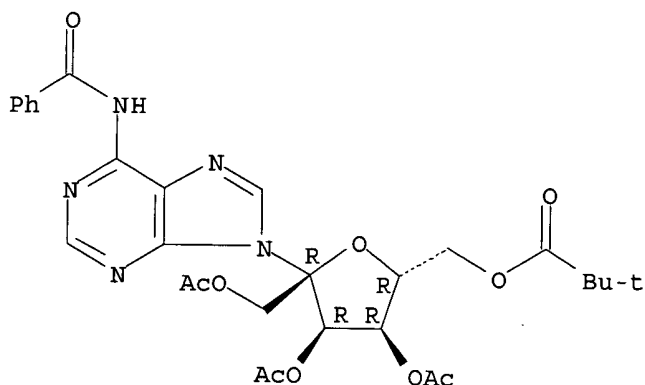
Absolute stereochemistry.



RN 138348-93-3 CAPLUS

CN Benzamide, N-[9-[1,3,4-tri-O-acetyl-6-O-(2,2-dimethyl-1-oxopropyl)-.beta.-D-psicofuranosyl]-9H-purin-6-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 138348-85-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

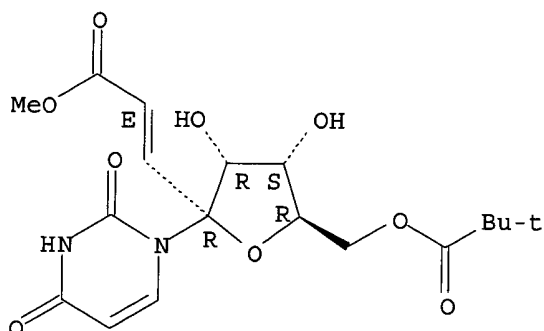
(prepn. and hydrolysis of)

RN 138348-85-3 CAPLUS

CN .beta.-D-ribo-Oct-2-en-4-ulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, methyl ester, 8-(2,2-dimethylpropanoate), (2E)- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.
Double bond geometry as shown.



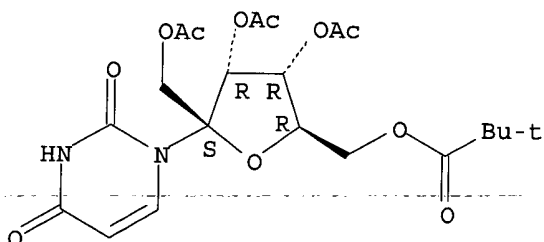
IT 138348-75-1P 138348-86-4P 138348-92-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 138348-75-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,3,4-tri-O-acetyl-6-O-(2,2-dimethyl-1-oxopropyl)-.alpha.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

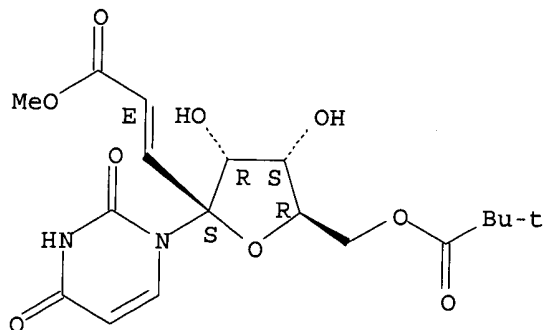
Absolute stereochemistry.



RN 138348-86-4 CAPLUS

CN .alpha.-D-ribo-Oct-2-en-4-ulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, methyl ester, 8-(2,2-dimethylpropanoate), (2E)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.



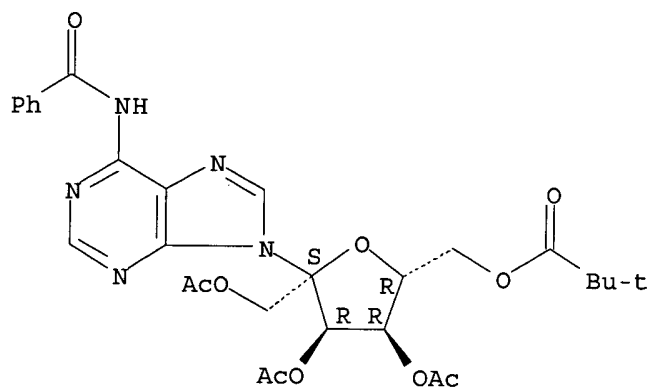
RN 138348-92-2 CAPLUS

CN Benzamide, N-[9-[1,3,4-tri-O-acetyl-6-O-(2,2-dimethyl-1-oxopropyl)-.alpha.-

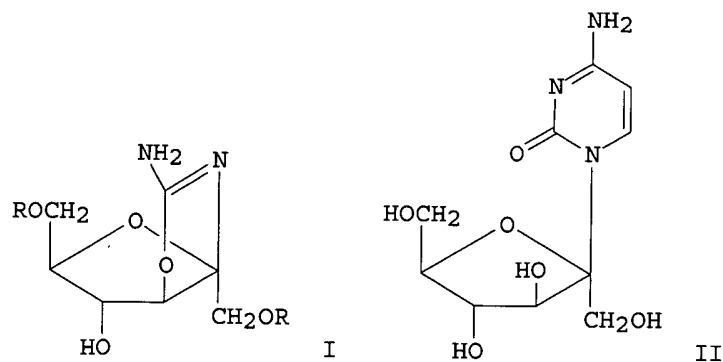
09567863

D-psicofuranosyl]-9H-purin-6-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 68 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1992:41932 CAPLUS
DN 116:41932
TI Synthesis of 1-.beta.-D-fructofuranosylcytosine. Synthesis of a
.beta.-D-fructofuranosyl nucleoside by the oxazolidine procedure
AU Tolman, Richard L.; Robins, Roland K.
CS Merck Sharp and Dohme Res. Lab., Rahway, NJ, 07065, USA
SO Nucleic Acid Chem. (1991), Volume 4, 105-8. Editor(s): Townsend, Leroy
B.; Tipson, R. Stuart. Publisher: Wiley, New York, N. Y.
CODEN: 39GCA6
DT Conference
LA English
OS CASREACT 116:41932
GI



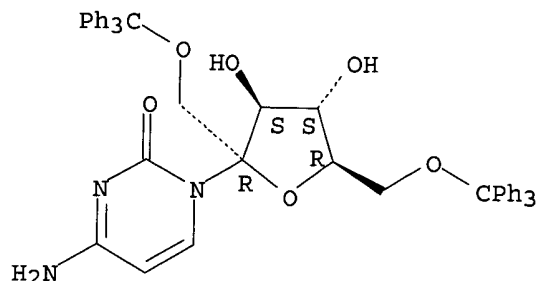
AB 1,6-Di-O-trityl-D-fructose was converted into aminofructofuranooxazoline
I(R = CPh3) with NH2CN in the presence of NH3-MeOH. Treatment of I with
cyanoacetylene causes ring closure to the anhydro nucleoside, which is
ring-opened with base to give 1-(1,6-di-O-trityl-.beta.-D-
fructofuranosyl)cytosine. Removal of the trityl groups with 98-100% HCO2H
gives the title nucleoside II in good yield.
IT 136207-37-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. detritylation of, with formic acid)

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RN 136207-37-9 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-[1,6-bis-O-(triphenylmethyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



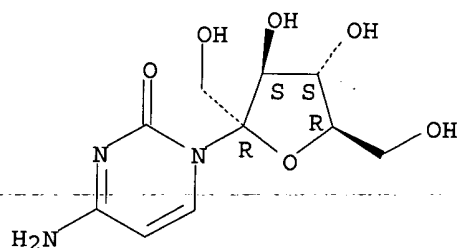
IT 136315-00-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 136315-00-9 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-fructofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 69 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1991:656529 CAPLUS

DN 115:256529

TI Synthesis of 6,1'-propanouridine, fixed in syn-conformation by a spiro-carbon bridge

AU Yoshimura, Yuichi; Ueda, Tohru; Matsuda, Akira

CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan

SO Tetrahedron Letters (1991), 32(35), 4549-52

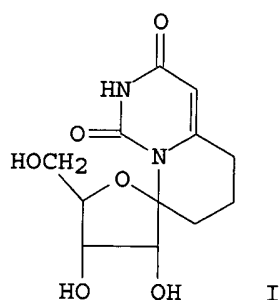
CODEN: TELEAY; ISSN: 0040-4039

DT Journal

LA English

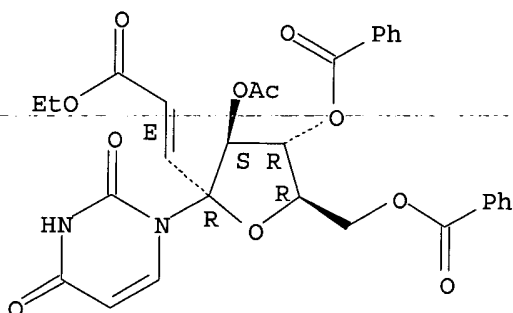
QS CASREACT 115:256529

GI



- AB 6,1'-Propanouridine (I), a carbon-bridged cyclouridine fixed in the syn-region of the glycosyl linkage, was synthesized from D-fructose. The correlation between the glycosyl torsional angle of I and other derivs., and the CD spectra of these C-cyclouridines are also discussed.
- IT 137273-01-9P 137273-02-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prep. and catalytic hydrogenation of)
- RN 137273-01-9 CAPLUS
- CN .beta.-D-arabino-Oct-2-en-4-ulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, ethyl ester, 5-acetate 6,8-dibenzoate, (2E)- (9CI) (CA INDEX NAME)

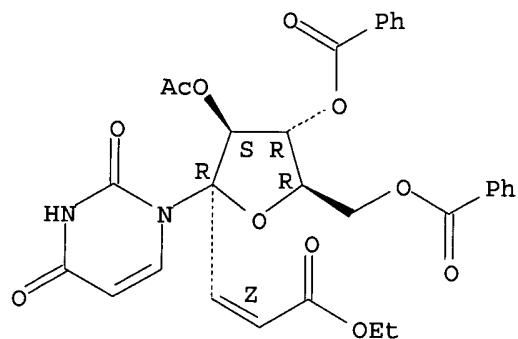
Absolute stereochemistry.
 Double bond geometry as shown.



- RN 137273-02-0 CAPLUS
- CN .beta.-D-arabino-Oct-2-en-4-ulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, ethyl ester, 5-acetate 6,8-dibenzoate, (2Z)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

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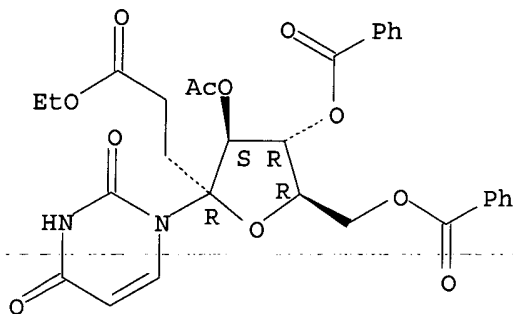
IT 137272-91-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in synthesis of cyclic propanouridine)

RN 137272-91-4 CAPLUS

CN .beta.-D-arabino-4-Octulofuranosonic acid, 2,3,4-trideoxy-4-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-, ethyl ester, 5-acetate 6,8-dibenzoate (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 70 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1991:632732 CAPLUS

DN 115:232732

TI Structural studies on 1-(1-deoxy-.beta.-D-psicofuranosyl)thymine

AU Plavec, J.; Buet, V.; Grouiller, A.; Koole, L.; Chattopadhyaya, J.

CS Biomed. Cent., Univ. Uppsala, Uppsala, S-751 23, Swed.

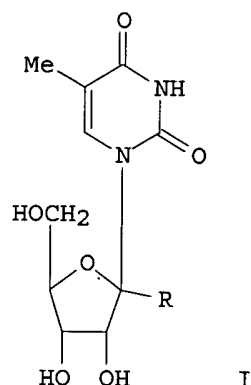
SO Tetrahedron (1991), 47(30), 5847-56

CODEN: TETRAB; ISSN: 0040-4020

DT Journal

LA English

GI



AB Conformational anal. of a novel nucleoside analog, 1-(1-deoxy-.beta.-D-psicofuranosyl)thymine (I, R = Me) (II) is described. The structure of II differs from the natural ribonucleoside counterpart (I, R = H) (III) in that a Me group replaces H1'. Conformational anal. of II was based on the vicinal proton-proton J-coupling consts., which were measured at 500 MHz for different solvents, and at different sample temps. Although merely two J-coupling consts. are available for conformational anal. of the furanose ring in III, it can be concluded that a preference exists for a north-type puckered conformation. Mol. mechanics calcns. yield mol. structures that are in excellent agreement with the NMR data, both for compds. II and III. Thus, it can be safely concluded that the Me group on C1' in II has a pronounced impact on the furanose conformation by driving its conformational equil. towards the north form. The north conformation of II appears to correspond with pseudo-equatorial location of the Me group, which is sterically favored.

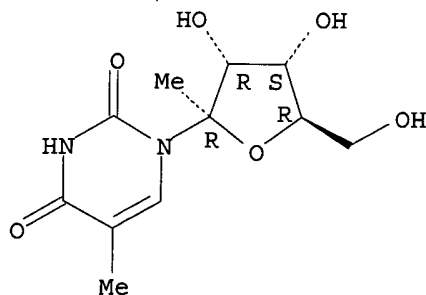
IT 34441-68-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(NMR, mol. mechanics, and conformation of)

RN 34441-68-4 CAPLUS

CN Uridine, 5-methyl-1'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 71 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1991:559632 CAPLUS

DN 115:159632

TI Synthesis of 1-.beta.-D-fructofuranosylcytosine. Synthesis of a .beta.-D-fructofuranosyl nucleoside by the oxazolidine procedure

AU Tolman, Richard L.; Robins, Roland K.

CS Merck Sharp and Dohme Res. Lab., Rahway, NJ, 07065, USA

SO Nucleic Acid Chem. (1991), Volume 4, 105-8. Editor(s): Townsend, Leroy

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B.; Tipson, R. Stuart. Publisher: Wiley, New York, N. Y.

CODEN: 39GCA6

DT Conference

LA English

OS CASREACT 115:159632

AB 1-.beta.-D-Fructofuranosylcytosine was prepd. from 1,6-di-O-trityl-D-fructose, via ring closure of fructofuranooxazoline I with cyanoacetylene.

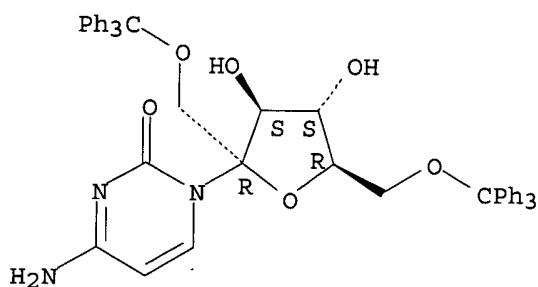
IT **136207-37-9P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and detritylation of)

RN 136207-37-9 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-[1,6-bis-O-(triphenylmethyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



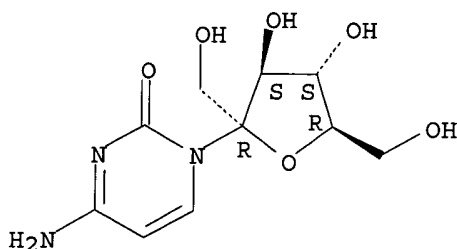
IT **136315-00-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 136315-00-9 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-fructofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 72 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1989:24205 CAPLUS

DN 110:24205

TI A novel stereospecific synthesis of 5-amino-1-.beta.-D-fructofuranosylimidazole-4-carboxamide

AU Grouiller, Annie; Mackenzie, Grahame; Najib, Boubker; Shaw, Gordon; Ewing, David

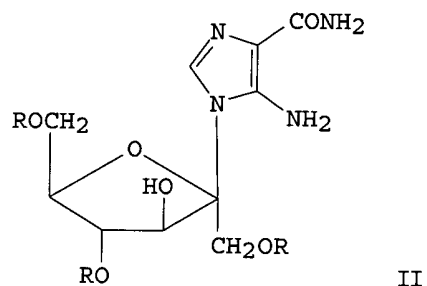
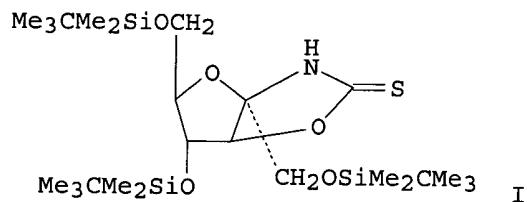
CS Inst. Natl. Sci. Appl. Lyon, Villeurbanne, 69621, Fr.

SO Journal of the Chemical Society, Chemical Communications (1988), (10), 671-2

CODEN: JCCCAT; ISSN: 0022-4936

DT Journal

LA English
OS CASREACT 110:24205
GI



AB A .beta.-D-fructofuranose fused oxazolidine-2-thione was isolated as the silyl deriv. I, which when desulfurized and treated with .alpha.-amino-.alpha.-cyanoacetamide gave the silylated 1-.beta.-D-fructofuranosyl aminoimidazole II (R = SiMe₂CMe₃) which when deblocked with methanolic hydrogen chloride produced 5-amino-.beta.-D-fructofuranosylimidazole-4-carboxamide (II; R = H).

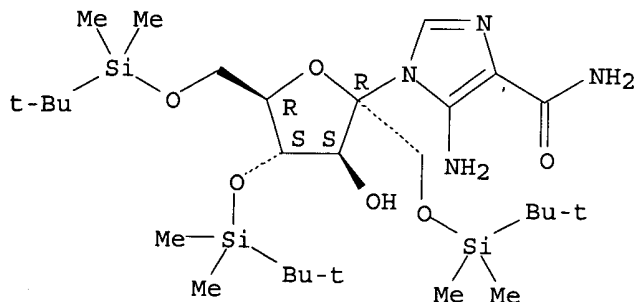
IT 117901-65-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and deprotection of)

RN 117901-65-2 CAPLUS

CN 1H-Imidazole-4-carboxamide, 5-amino-1-[1,4,6-tris-O-[(1,1-dimethylethyl)dimethylsilyl]-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 114987-22-3P

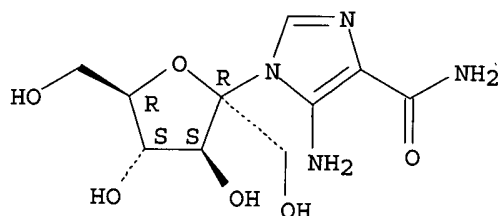
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 114987-22-3 CAPLUS

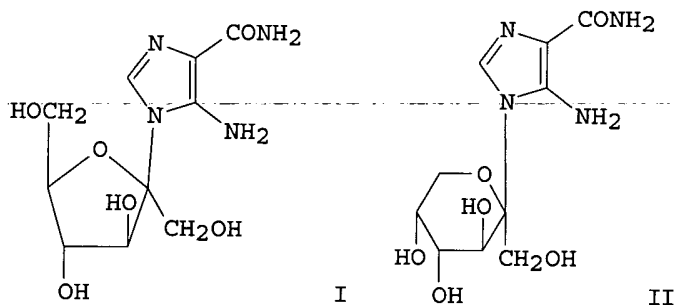
CN 1H-Imidazole-4-carboxamide, 5-amino-1-.beta.-D-fructofuranosyl- (9CI) (CA
INDEX NAME)

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Absolute stereochemistry.

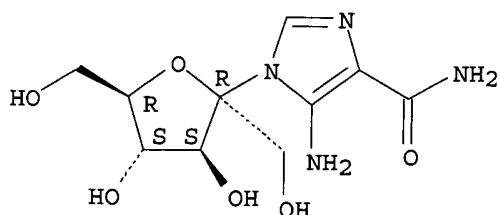


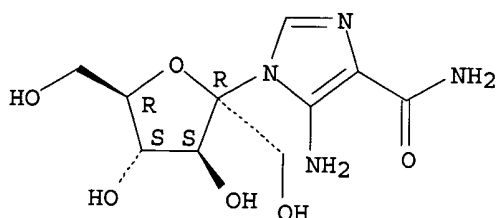
L3 ANSWER 73 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1988:423283 CAPLUS
DN 109:23283
TI Synthesis of D-fructosyl-5-aminoimidazole nucleosides from oxazoline intermediates and D-fructosylamine
AU Grouiller, A.; Mackenzie, G.; Najib, B.; Shaw, G.; Pacheco, H.
CS Inst. Natl. Res. Sci. Appl., Villeurbanne, 69621, Fr.
SO Nucleic Acids Symposium Series (1987), 18(Symp. Chem. Nucleic Acid Compon., 7th, 1987), 17-19
CODEN: NACSD8; ISSN: 0261-3166
DT Journal
LA English
OS CASREACT 109:23283
GI



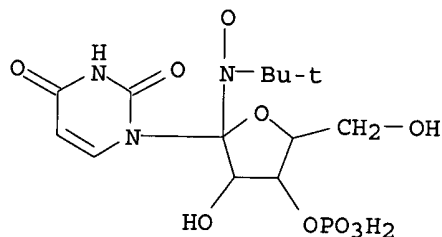
AB A lecture. The title nucleosides I and II were prepd.
IT 114987-22-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from fructosylamine)
RN 114987-22-3 CAPLUS
CN 1H-Imidazole-4-carboxamide, 5-amino-1-.beta.-D-fructofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





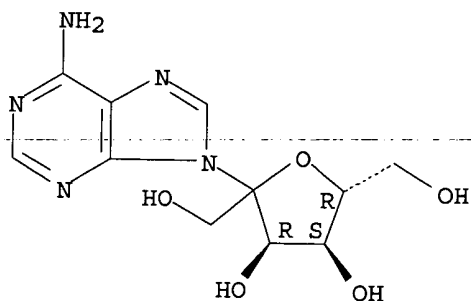
- L3 ANSWER 74 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1988:18497 CAPLUS
 DN 108:18497
 TI Hydroxyl-induced free radicals in 3'-UMP and poly(U): spin-trapping and radical chromatography
 AU Inanami, Osamu; Kuwabara, Mikinori; Sato, Fumiaki
 CS Fac. Vet. Med., Hokkaido Univ., Sapporo, 060, Japan
 SO Radiation Research (1987), 112(1), 36-44
 CODEN: RAREAE; ISSN: 0033-7587
 DT Journal
 LA English
 AB Characterization of OH-induced free radicals from 3'-UMP and poly(U) was performed by a method combining spin-trapping and radical chromatog. A N2O-satd. aq. soln. contg. 3'-UMP and 2-methyl-2-nitrosopropane as a spin-trap was x-irradiated. The spin adducts generated by the reactions of OH radical with 3'-UMP were sepd. by paired-ion HPLC and the sepd. spin adducts were identified by ESR spectroscopy. In the case of poly(U), the spin adducts were digested to oligonucleotides with RNase A and then sepd. and identified in the same manner as 3'-UMP. The free radicals obsd. for poly(U) were identical to those for 3'-UMP. The 5-yl radical and the 6-yl radical were identified as precursors of various oxidized products of the base moiety, and the 4'-yl radical and 5'-yl radical, formed by H abstraction at the C-4' and C-5' positions of the sugar moieties, resp., were identified as precursors of strand breaks. The 1'-yl radical, produced by H abstraction at the C-1' position of the sugar moiety, was also identified. From the similarity of the free radicals of 3'-UMP and poly(U), it is suggested that the reactivities of OH radicals with nucleotides are identical to those in polynucleotides.
 IT 111974-09-5
 RL: FORM (Formation, nonpreparative)
 (formation of, from poly(U) and UMP reaction with hydroxyl after x-ray radiolysis)
 RN 111974-09-5 CAPLUS
 CN 3'-Uridylic acid, 1'-C-[(1,1-dimethylethyl)oxyamino] - (9CI) (CA INDEX NAME)



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DN 107:141699
TI Silver hydride, silver dimer, and silver oxide (AgH, Ag₂, and AgO)
revisited: basis set extensions
AU Martin, Richard L.
CS Theor. Div., Los Alamos Natl. Lab., Los Alamos, NM, 87545, USA
SO Journal of Chemical Physics (1987), 86(9), 5027-31
CODEN: JCPSA6; ISSN: 0021-9606
DT Journal
LA English
AB An extended basis set was developed for Ag which significantly improved the agreement between theor. and exptl. spectroscopic parameters for AgH, AgO, and Ag₂. The major improvement came about as a result of the improved treatment of electron correlation in the Ag d-shell upon the introduction of f-functions. Their inclusion produced very slight differences at the SCF level, but significant redns. in re and increases in .omega.e and De in the Moeller-Pleest perturbation theory expansion. At the MP4 (SDTQ) level. typical results are 0.02 .ANG. too long for re, 4% too low for .omega.e, and 10 kcal too small for De. From a pragmatic standpoint, MP2 gave results very similar to this at a much reduced level of effort.
IT 13019-86-8, Adenine, 9-D-psicofuranosyl-
RL: PRP (Properties)
(spectroscopic constns. of, correlated wave function for silver in calcns. of)
RN 13019-86-8 CAPLUS
CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 76 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1987:529994 CAPLUS
DN 107:129994
TI Menadione sensitized photooxidation of nucleic acid and protein constituents. An ESR and spin-trapping study
AU Krishna, C. Murali; Decarroz, C.; Wagner, J. R.; Cadet, J.; Riesz, P.
CS Div. Cancer Treatment, Natl. Cancer Inst., Bethesda, MD, 20892, USA
SO Photochemistry and Photobiology (1987), 46(2), 175-82
CODEN: PHCBAP; ISSN: 0031-8655
DT Journal
LA English
AB The menadione photosensitized reactions of nucleic acid and protein constituents were studied by ESR and spin trapping. Thymine, thymidine, cytosine, 2'-deoxycytidine, 5'-dCMP, uracil, and several N-acetylamino acids and dipeptides were investigated. Photolysis at 335 nm was carried out in air-satd. or Ar-satd. DMSO:H₂O (1:1) contg. 10⁻³M menadione and 10⁻²M 2-methyl-2-nitrosopropane as the spin trap. The obsd. spin adducts were explained in terms of electron transfer from the substrate to the excited triplet state of menadione to form the radical cation of the

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substrate and the anion radical of menadione which was also detected by ESR.

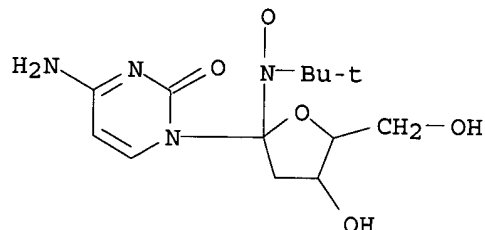
IT 110231-43-1

RL: PRP (Properties)

(ESR of, from nucleic acid derivs. photolysis sensitization by menadione)

RN 110231-43-1 CAPLUS

CN Nitroxide, 1-C-(4-amino-2-oxo-1(2H)-pyrimidinyl)-2-deoxy-.alpha.-D-erythro-pentofuranosyl 1,1-dimethylethyl (9CI) (CA INDEX NAME)



L3 ANSWER 77 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1987:138738 CAPLUS

DN 106:138738

TI 1-Phosphonomethyl-.beta.-D-uridine derivatives

IN Tatsuoka, Toshio; Imao, Kayoko; Suzuki, Kenji

PA Suntory, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

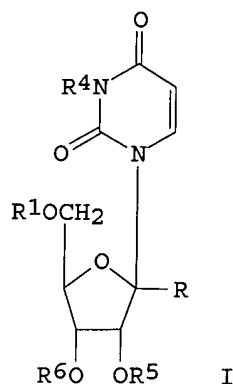
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61275291	A2	19861205	JP 1985-114750	19850528
PRAI	JP 1985-114750		19850528		
OS	CASREACT 106:138738				
GI					



AB The title compds. [I; R = CH₂P(O)(OR₂)OR₃ (R₂, R₃ = H, lower alkyl; R₁, R₄ = H, aralkyl; R₅, R₆ = H], useful as inhibitors of nucleic acid synthesis and thus useful as anticancer agents, virucides, central nervous system agents and agrochemicals., e.g., insecticides (no data), were prepd. Thus, a

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soln. of aldehyde I (R = CHO, R1 = CPh3, R4 = H, R5 R6 = CHMe2) and its diastereoisomeric hemiacetals I [CH(OH)OMe, R1 - R6 same as above] and HP(O)(OMe)2 in DMF contg. Et3N was allowed to react at room temp. to give 83% I [R = CH(OH)PO(OMe)2, R1 = CPh3, R4 = H, R5 R6 = CHMe2] whose thiocarbonylation with 1,1'-thiocarbonyldiimidazole in ClCH2CH2Cl at b. temp. followed by deoxygenation with 1.1 equiv Bu3SnH and 1.1 equiv azobisisobutyronitrile in benzene at b. temp. and deprotection with 0.2 N HCl in MeOH gave I [R = CH2P(O)(OMe)2, R1 = R4-R6 = H].

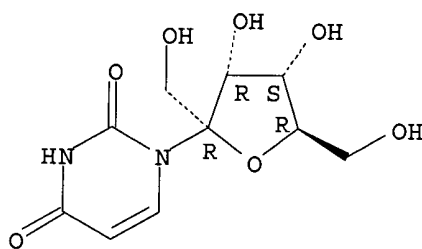
IT 53263-33-5P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and acetonation of, by dimethoxypropane)

RN 53263-33-5 CAPLUS

CN Uridine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



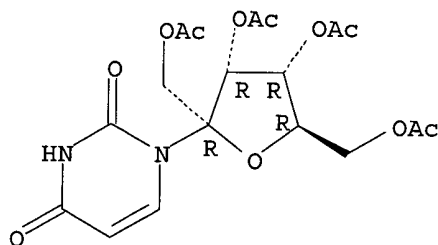
IT 53263-34-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and deacetylation of)

RN 53263-34-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,3,4,6-tetra-O-acetyl-.beta.-D-
psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 107367-24-8P 107367-25-9P 107367-26-0P
107367-28-2P

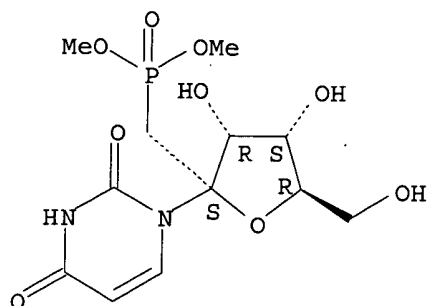
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation)
(prepn. of, as anticancer agent, virucide and insecticide)

RN 107367-24-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(dimethoxyphosphinyl)-.beta.-D-
psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

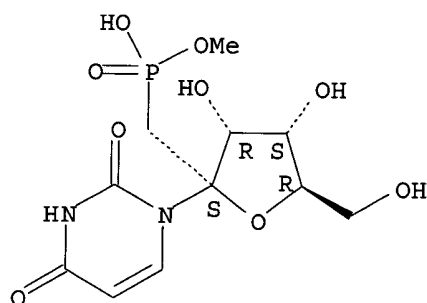
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RN 107367-25-9 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(hydroxymethoxyphosphinyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

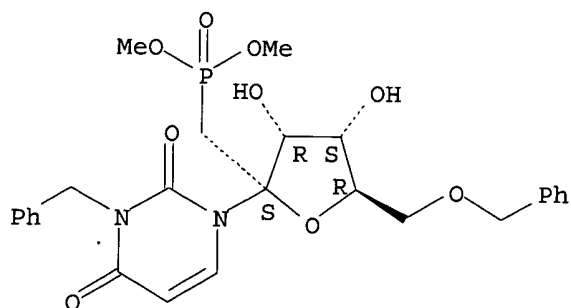
Absolute stereochemistry.



RN 107367-26-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(dimethoxyphosphinyl)-6-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-3-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 107367-28-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(hydroxymethoxyphosphinyl)-6-O-(phenylmethyl)-.beta.-D-psicofuranosyl]-3-(phenylmethyl)-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

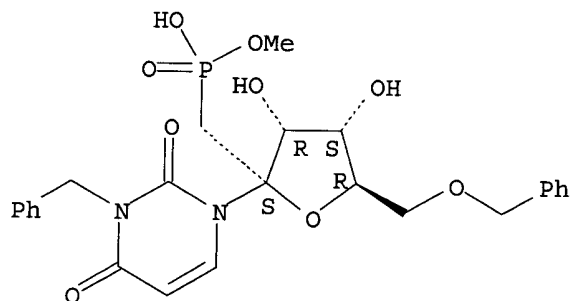
CM 1

CRN 107367-27-1

CMF C25 H29 N2 O9 P

09567863

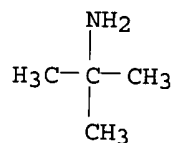
Absolute stereochemistry.



CM 2

CRN 75-64-9

CMF C4 H11 N



L3 ANSWER 78 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1987:138737 CAPLUS

DN 106:138737

TI 1',3'-Deoxy-1'-phosphono-.beta.-D-fructofuranosyluracil

IN Tatsuoaka, Toshio; Imao, Kayoko; Suzuki, Kenji

PA Suntory, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

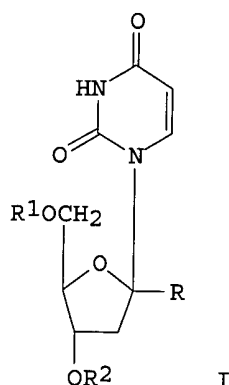
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61275290	A2	19861205	JP 1985-114749	19850528
PRAI	JP 1985-114749		19850528		
OS	CASREACT 106:138737				
GI					



AB The title compds. [I; R = CH₂P(O)(OR₃)OR₄ (R₃, R₄ = H, alkyl); R₁, R₂ = H, acyl], useful as inhibitors of nucleic acid synthesis, and thus useful as anticancer agents, virucides, central nervous system agents, and insecticides (no data), were prepd. by reaction of I [R = CHO, CH(OH)OR₅ (R₅ = lower alkyl)] with HP(O)(OR₆)₂ (R₆ = lower alkyl) in the presence of a base followed by deoxygenation. Thus, a soln. of I [R = CH(OH)OMe; R₁R₂ = Si(CHMe₂)₂OSi(CHMe₂)₂ (Q)] and (MeO)₂PH in THF contg. Et₃N was refluxed for 11 h under N to give 76% diastereoisomers I [R = CH(OH)P(O)(OMe)₂, R₁R₂ = Q], whose thiocarbonylation with 1,1'-thiocarbonyldiimidazole in ClCH₂CH₂Cl followed by deoxygenation with 1 equiv Bu₃SnH in benzene contg. 1.2 equiv azobisisobutyronitrile at 6 temp. and desilylation with Bu₄NF in THF gave I [R = CH₂P(O)(OMe)₂, R₁, R₂ = H].

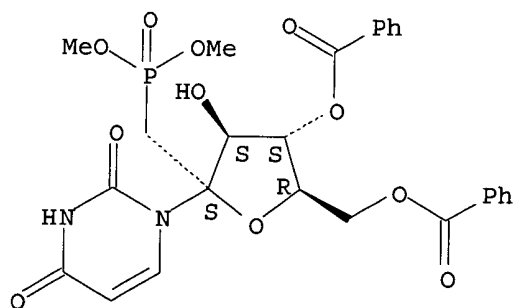
IT 105291-37-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and thiocarbonylation of, by Ph chlorothiuronate)

RN 105291-37-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1-deoxy-1-(dimethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 105291-39-2P 105291-40-5P 107216-02-4P
107216-04-6P 107216-05-7P

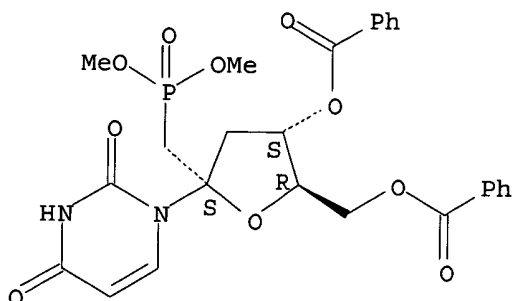
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of, as anticancer agent, virucide, or insecticide)

RN 105291-39-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1,3-dideoxy-1-(dimethoxyphosphinyl)-.beta.-D-erythro-2-hexulofuranosyl]- (9CI) (CA INDEX NAME)

09567863

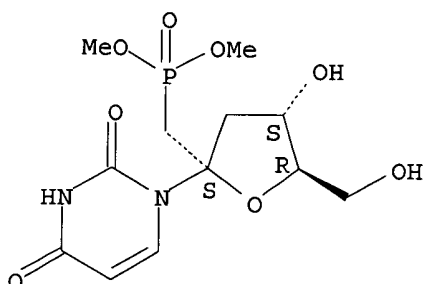
Absolute stereochemistry.



RN 105291-40-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,3-dideoxy-1-(dimethoxyphosphinyl)-.beta.-D-erythro-2-hexulofuranosyl]- (9CI) (CA INDEX NAME)

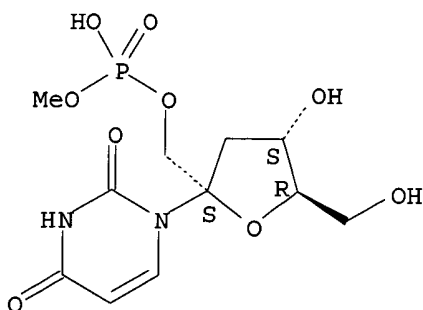
Absolute stereochemistry.



RN 107216-02-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3-deoxy-1-O-(hydroxymethoxyphosphinyl)-.beta.-D-erythro-2-hexulofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 107216-04-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1,3-dideoxy-1-(hydroxymethoxyphosphinyl)-.beta.-D-erythro-2-hexulofuranosyl]-, compd. with 2-methyl-2-propanamine (1:1) (9CI) (CA INDEX NAME)

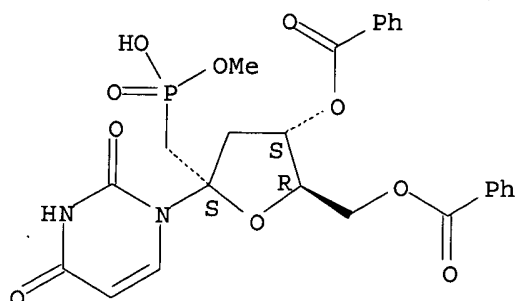
CM 1

CRN 107216-03-5

CMF C25 H25 N2 O10 P

09567863

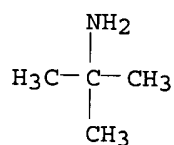
Absolute stereochemistry.



CM 2

CRN 75-64-9

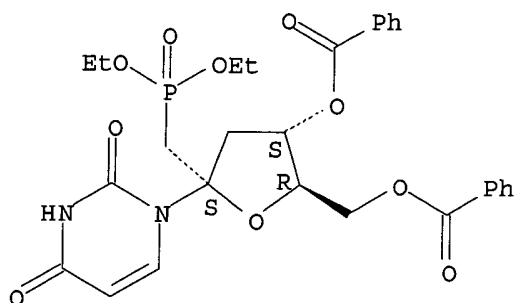
CMF C4 H11 N



RN 107216-05-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1,3-dideoxy-1-(diethoxyphosphinyl)-.beta.-D-erythro-2-hexulofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 105291-38-1P 107216-06-8P

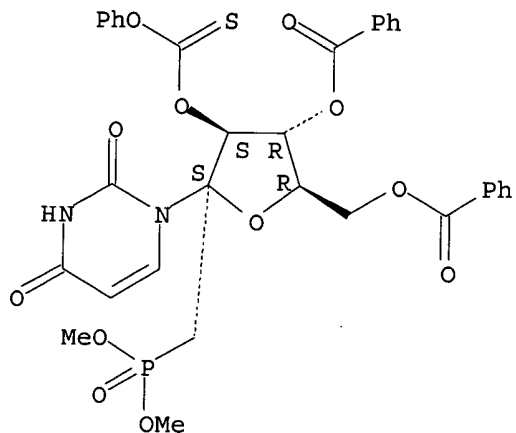
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, in prepn. of dideoxyphosphonofructofuranosyluracil via deoxygenation)

RN 105291-38-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1-deoxy-1-(dimethoxyphosphinyl)-3-O-(phenoxythioxomethyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

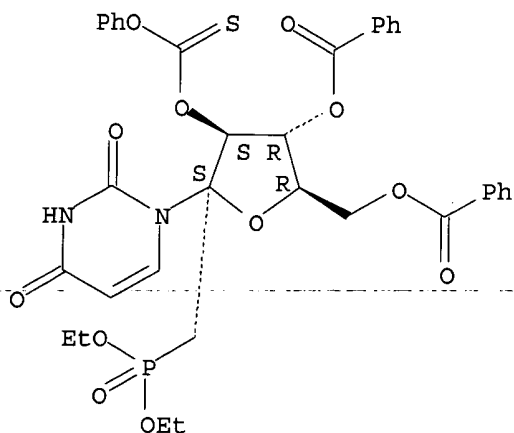
09567863



RN 107216-06-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1-deoxy-1-(diethoxyphosphinyl)-3-O-(phenoxythioxomethyl)-.beta.-D-fructofuranosyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



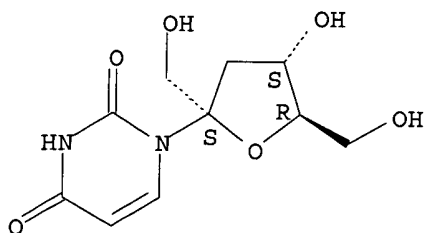
IT 55697-37-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation of, by dichlorotetraisopropyldisiloxane)

RN 55697-37-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)-(9CI) (CA INDEX NAME)

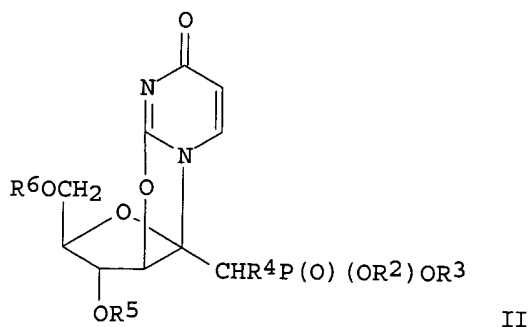
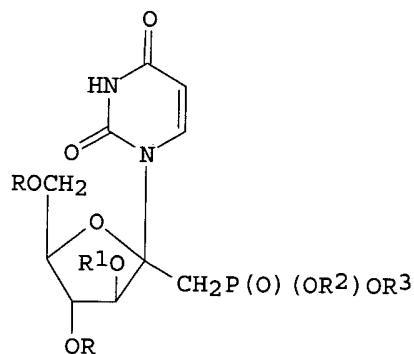
Absolute stereochemistry.



09567863

L3 ANSWER 79 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1987:67632 CAPLUS
 DN 106:67632
 TI 1'-Deoxy-1'phosphono-.beta.-D-fructofuranosyluracils
 IN Tatsuoka, Toshio; Imao, Kayoko; Suzuki, Kenji
 PA Suntory, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 61205295	A2	19860911	JP 1985-45827	19850308
PRAI	JP 1985-45827		19850308		
OS	CASREACT 106:67632				
GI					



AB The title compds. (I; R, R1 = H, alkanoyl; R2, R3 = H, alkyl), useful as antiviral and anticancer agents, were prepd. from anhydrouracil derivs. [II; R2, R3 = alkyl, R4 = OH, R5 R6 = (Me2CH)2SiOSi(CHMe2)2]. Thus, thiocarbonylation of II [R2 = R3 = Et, R4 = OH, R5R6 = (Me2CH)2SiOSi(CHMe2)2] with PhOC(S)Cl in ClCH2CH2Cl contg. 4-(dimethylamino)pyridine, redn. of the resulting II (R4 = OC(S)OPh) with Bu3SnH in benzene contg. azobisisobutyronitrile, desilylation of II (R4 = H) with 1 M Bu4NF in THF, and benzylation of the resulting II (R2 = R3 = Et, R4 = R5 = R6 = H) with PhCOCN in MeCN contg. Et3N gave II (R2 = R3 = Et, R4 = H, R5 = R6 = Bz). This was treated with 1 N HCl in aq. EtOH at room temp. overnight to give, after debenzoylation with MeONa/MeOH, I (R = R1 = H, R2 = R3 = Et). This at 100 mg/kg was active against mouse leukemia cells P388 in mice.

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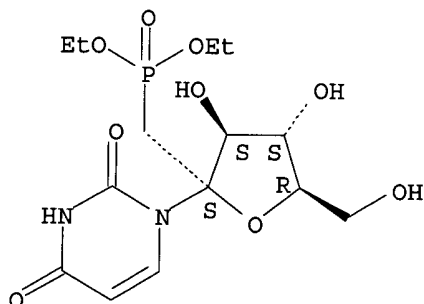
IT 105291-30-3P 105291-31-4P 105291-32-5P
105291-33-6P 105291-34-7P 105291-35-8P
105291-37-0P 106443-88-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as antiviral and anticancer agent)

RN 105291-30-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(diethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

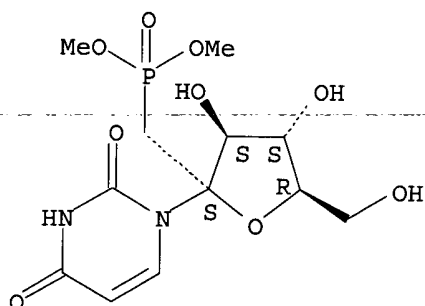
Absolute stereochemistry.



RN 105291-31-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(dimethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

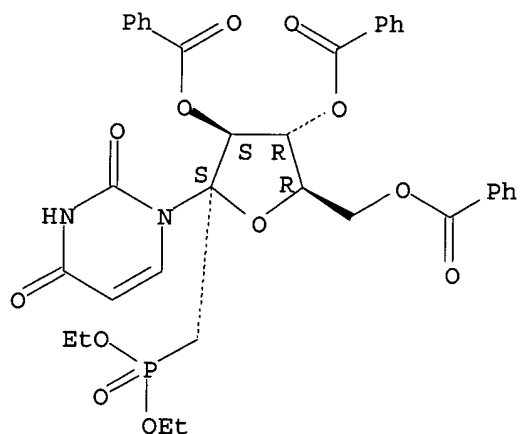


RN 105291-32-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3,4,6-tri-O-benzoyl-1-deoxy-1-(diethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

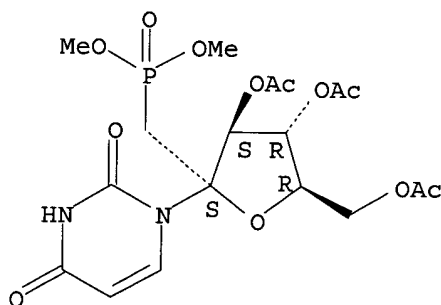
09567863



RN 105291-33-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3,4,6-tri-O-acetyl-1-deoxy-1-(dimethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

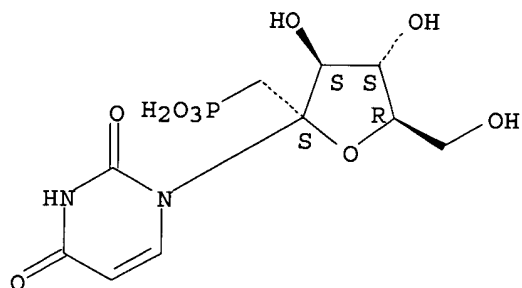
Absolute stereochemistry.



RN 105291-34-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1-deoxy-1-phosphono-.beta.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

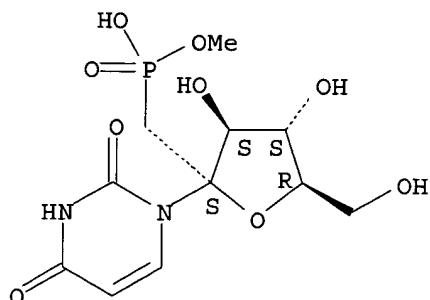


RN 105291-35-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(hydroxymethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

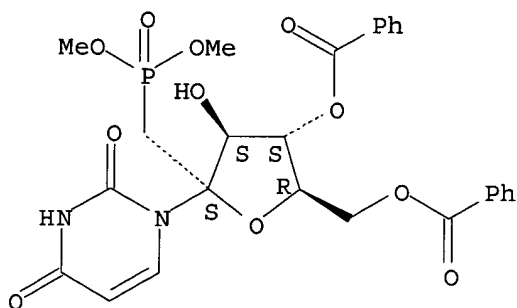
Absolute stereochemistry.

09567863



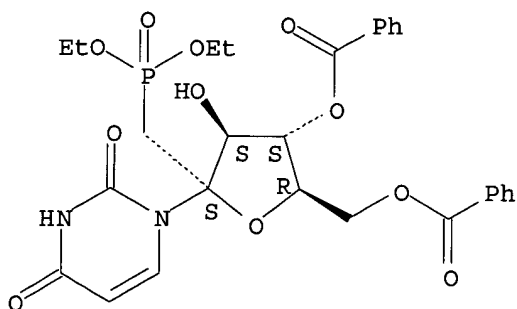
RN 105291-37-0 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1-deoxy-1-(dimethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 106443-88-3 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1-deoxy-1-(diethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 80 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1986:627212 CAPLUS
DN 105:227212
TI Phosphono nucleosides. 2. Synthesis of 1'-deoxy-1'-phosphono-1-.beta.-D-fructofuranosyluracil and 1',3'-dideoxy-1'-phosphono-1-.beta.-D-fructofuranosyluracil
AU Tatsuoka, Toshio; Imao, Kayoko; Suzuki, Kenji
CS Suntory Inst. Biomed. Res., Suntory Ltd., Osaka, 618, Japan
SO Heterocycles (1986), 24(8), 2133-6
CODEN: HTCYAM; ISSN: 0385-5414

09567863

DT Journal
LA English
OS CASREACT 105:227212
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Phosphona nucleosides I ($R = OH$, $R1 = R2 = H$; $R = OH$, $R1 = H$, $R2 = Me$; $R = H$, $R1 = R2 = Me$) were prepd. in several steps from anhydrodeoxyphosphonofructofuranosyluracils II ($R3 = Me$, Et). For example, II ($R3 = Et$) on sequential anhydro-ring cleavage with $HCl/EtOH$, O-benzoylation with $PhCOCN/Et3N/MeCN$, and deprotection with $Me3SiH/CH2Cl2$ gave 2 ($R = OH$, $R1 = R2 = H$). Also prepd. was deoxyphosphononucleoside III [$R4 = P(O)(OH)(OMe)$] from III ($R4 = OH$).

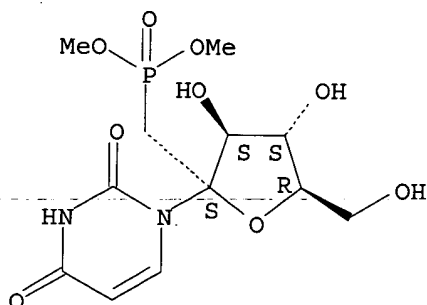
IT 105291-31-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and acetylation of)

RN 105291-31-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(dimethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



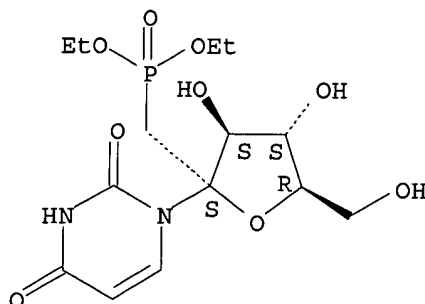
IT 105291-30-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and benzoylation of)

RN 105291-30-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(diethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



09567863

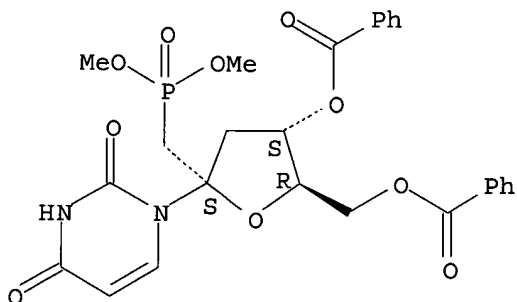
IT 105291-39-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and debenzylation of)

RN 105291-39-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1,3-dideoxy-1-
(dimethoxyphosphinyl)-.beta.-D-erythro-2-hexulofuranosyl]- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.



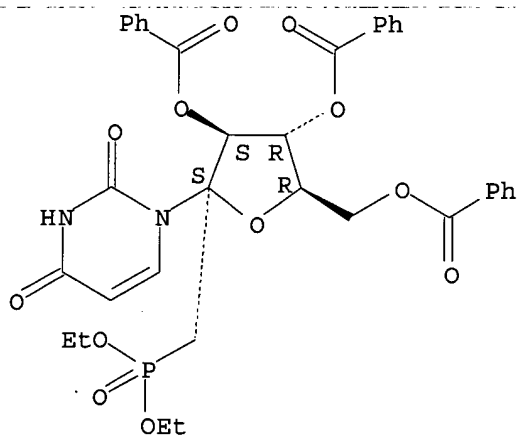
IT 105291-32-5P 105291-33-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and deprotection of)

RN 105291-32-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3,4,6-tri-O-benzoyl-1-deoxy-1-
(diethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

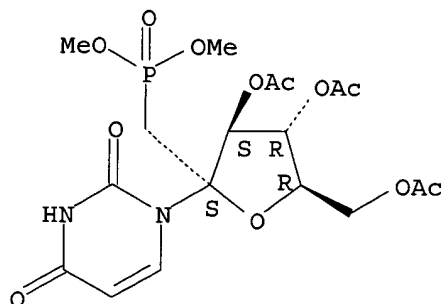


RN 105291-33-6 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[3,4,6-tri-O-acetyl-1-deoxy-1-
(dimethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



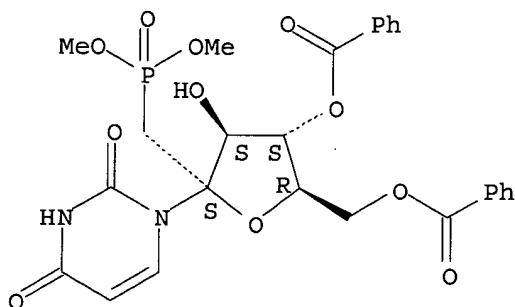
IT 105291-37-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with Ph chlorothiocarbonate)

RN 105291-37-0 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1-deoxy-1-(dimethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



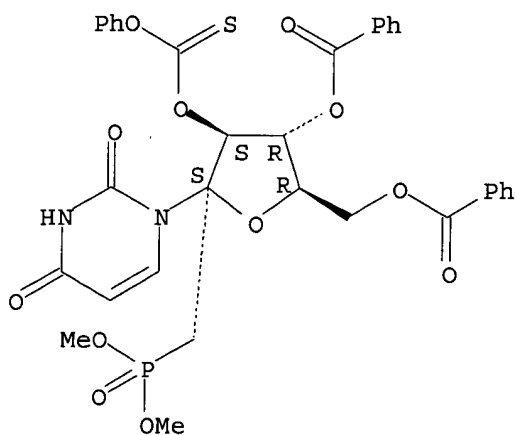
IT 105291-38-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and redn. of)

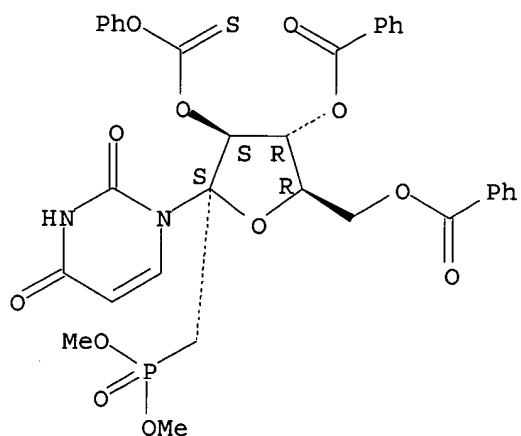
RN 105291-38-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[4,6-di-O-benzoyl-1-deoxy-1-(dimethoxyphosphinyl)-3-O-(phenoxythioxomethyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



09567863



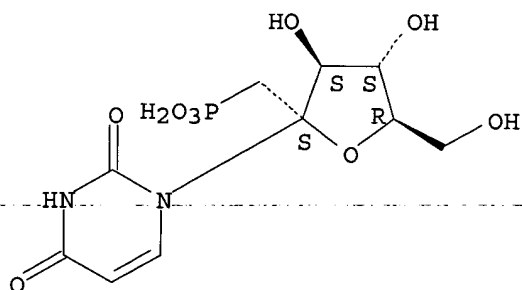
IT 105291-34-7P 105291-35-8P 105291-40-5P
105291-47-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 105291-34-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1-deoxy-1-phosphono-.beta.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

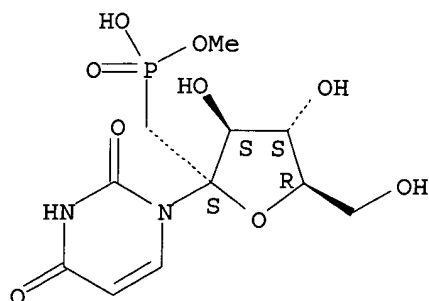
Absolute stereochemistry.



RN 105291-35-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1-deoxy-1-(hydroxymethoxyphosphinyl)-.beta.-D-fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

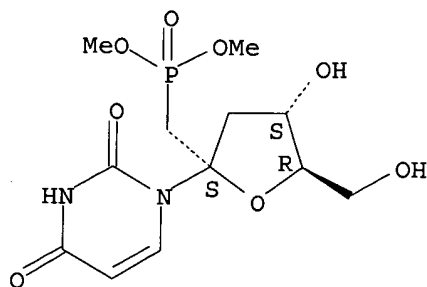


RN 105291-40-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,3-dideoxy-1-(dimethoxyphosphinyl)-.beta.-D-erythro-2-hexulofuranosyl]- (9CI) (CA INDEX NAME)

09567863

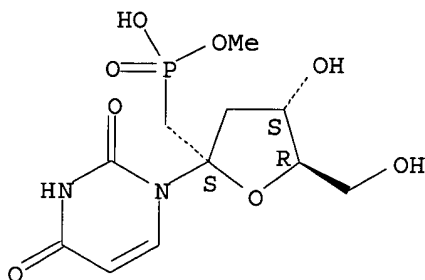
Absolute stereochemistry.



RN 105291-47-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,3-dideoxy-1-(hydroxymethoxyphosphinyl)-.beta.-D-erythro-2-hexulofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



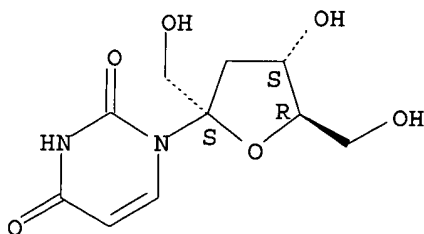
IT 55697-37-5

RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation of, with dichlorotetraisopropyldisiloxane)

RN 55697-37-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 81 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1985:469796 CAPLUS

DN 103:69796

TI Production of the antibiotic psicofuranine by Micromonospora

PA Kyowa Hakko Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

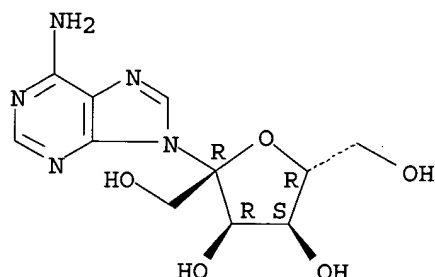
LA Japanese

09567863

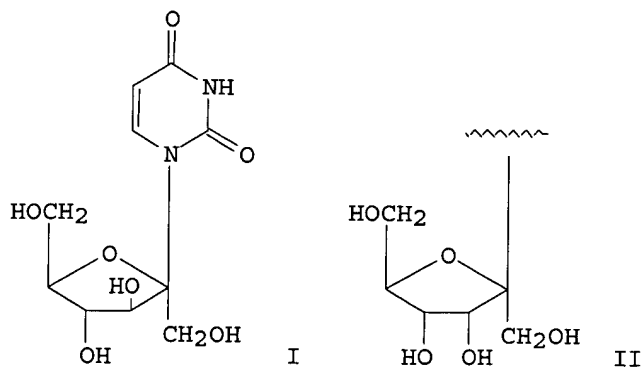
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60024195	A2	19850206	JP 1983-130547	19830718
PRAI	JP 1983-130547		19830718		
AB	Psicofuranine (I) [1874-54-0] is produced from culture of M. echinospora psicofuraca MK230. The microorganism was shake-cultured at 28.degree. for 4 days on a medium contg. glucose 5, sol. starch 30, soybean flour 30, corn steep liquor 5, yeast ext. 5, and CaCO ₃ 3 g/L. The culture filtrate (4 L) yielded 10 mg I.				
IT	1874-54-0P RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation) (manuf. of, with Micromonospora echinospora psicofuraca)				
RN	1874-54-0 CAPLUS				
CN	9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



L3 ANSWER 82 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1984:630927 CAPLUS
DN 101:230927
TI Synthesis of D-psico- and D-fructofuranosyl nucleosides
AU Grouiller, Annie; Chattopadhyaya, Jyoti
CS Inst. Natl. Sci. Appl. Lyon, Villeurbanne, 69621, Fr.
SO Acta Chemica Scandinavica, Series B: Organic Chemistry and Biochemistry (1984), B38(5), 367-73
CODEN: ACBOCV; ISSN: 0302-4369
DT Journal
LA English
GI



AB The condensation of 6-chloropurine with peracylated psicofuranosyl and fructofuranosyl chlorides, using Yamaoka's procedure, afforded resp. the .beta. and .alpha. anomers of the corresponding purine nucleosides. A similar result was obtained when silylated uracil was reacted with peracylated ketose. The 1st chem. synthesis of 1-.beta.-D-fructofuranosyluracil (I) has also been accomplished from 1-.beta.-D-psicofuranosyluracil (II) via the 2,3'-anhydro deriv.

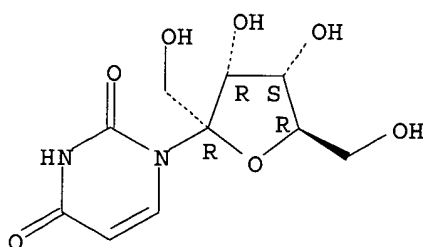
IT 53263-33-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. and conversion of, to fructofuranosyluracil)

RN 53263-33-5 CAPLUS

CN Uridine, 1'-C-(hydroxymethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



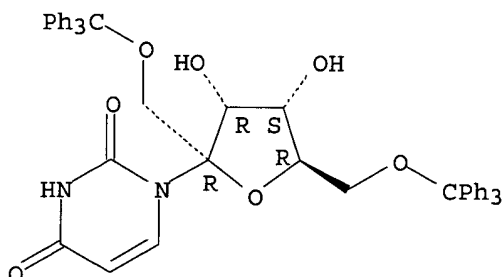
IT 93417-31-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and cyclization of)

RN 93417-31-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,6-bis-O-(triphenylmethyl)-.beta.-D-psicofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



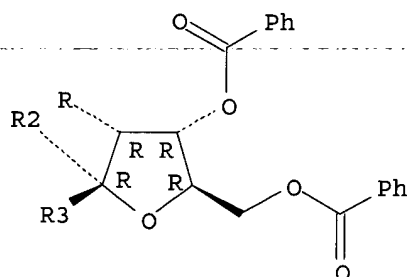
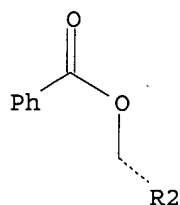
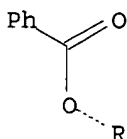
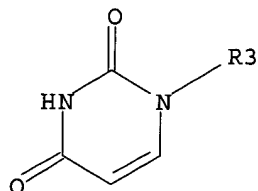
IT 93417-27-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and debenzoylation of)

RN 93417-27-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,3,4,6-tetra-O-benzoyl-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 93417-33-5P

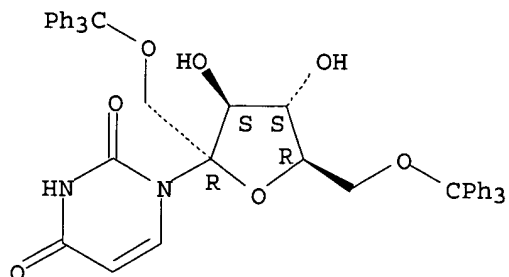
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and deprotection of)

RN 93417-33-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,6-bis-O-(triphenylmethyl)-.beta.-D-
fructofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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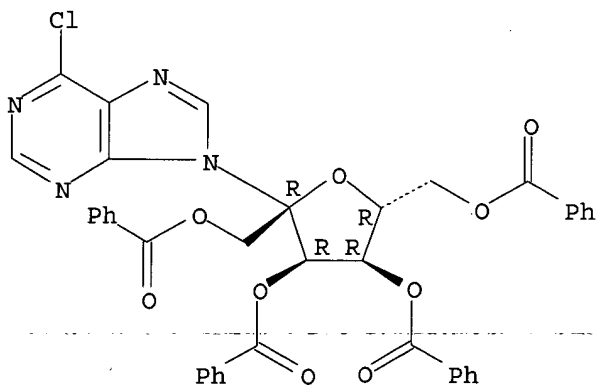
IT 93417-25-5P 93417-26-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with ammonia)

RN 93417-25-5 CAPLUS

CN 9H-Purine, 6-chloro-9-(1,3,4,6-tetra-O-benzoyl-.beta.-D-piscofuranosyl)-
(9CI) (CA INDEX NAME)

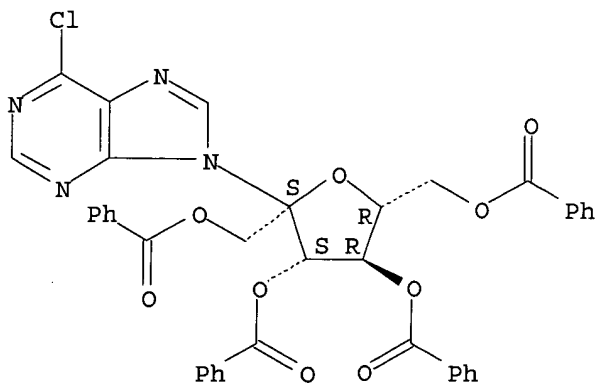
Absolute stereochemistry.



RN 93417-26-6 CAPLUS

CN 9H-Purine, 6-chloro-9-(1,3,4,6-tetra-O-benzoyl-.alpha.-D-fructofuranosyl)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 1874-54-0P 6936-84-1P 55697-39-7P
93417-28-8P 93417-29-9P

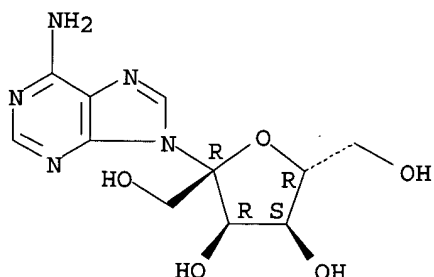
09567863

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

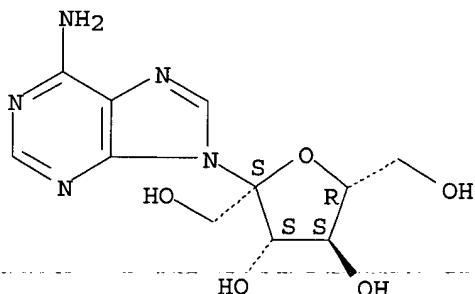
Absolute stereochemistry.



RN 6936-84-1 CAPLUS

CN 9H-Purin-6-amine, 9-.alpha.-D-fructofuranosyl- (9CI) (CA INDEX NAME)

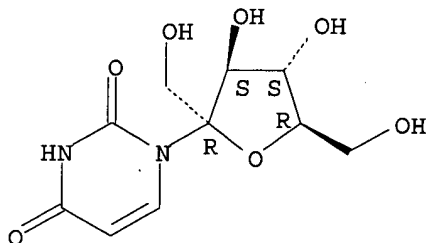
Absolute stereochemistry.



RN 55697-39-7 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-D-fructofuranosyl- (9CI) (CA INDEX NAME)

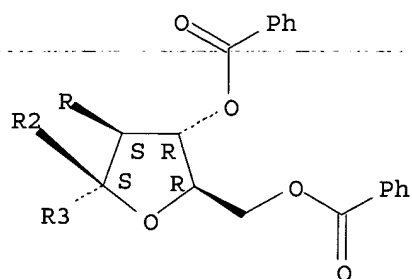
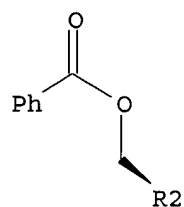
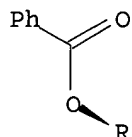
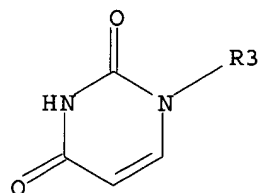
Absolute stereochemistry.



RN 93417-28-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,3,4,6-tetra-O-benzoyl-.alpha.-D-fructofuranosyl)- (9CI) (CA INDEX NAME)

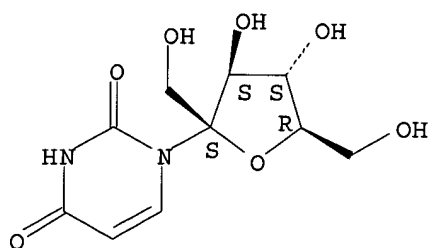
Absolute stereochemistry.



RN 93417-29-9 CAPLUS

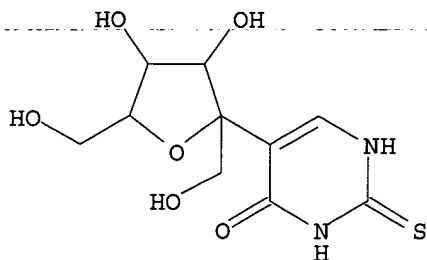
CN 2,4(1H,3H)-Pyrimidinedione, 1-.alpha.-D-fructofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

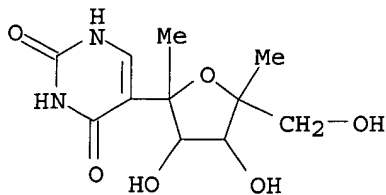


09567863

L3 ANSWER 83 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1984:192201 CAPLUS
DN 100:192201
TI C-Nucleoside synthesis. 19. Stereocontrolled general synthesis of
pyrimidine C-nucleosides having branched-chain sugar moieties
AU Sato, Tsuneo; Watanabe, Makoto; Kobayashi, Hiroshi; Noyori, Ryoji
CS Dep. Chem., Nagoya Univ., Nagoya, 464, Japan
SO Bulletin of the Chemical Society of Japan (1983), 56(9), 2680-99
CODEN: BCSJA8; ISSN: 0009-2673
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB Pyrimidine C-nucleosides bearing branched-chain sugars were prepd. via
(isopropylidenedioxy)dioxabicyclo[4.2.1]nonanones I (R, R1 = Me, Me; Me,
H; pentyl, H; Ph, H) and II (R2, R3 = H, alkyl, Ph, BzOCH2). The general
procedure consisted of condensation of I with (Me2N)2CHOCMe3 to give
.alpha.-dimethylaminomethylene lactones, and subsequent base-catalyzed
heterocycle formation with urea, thiourea, or guanidine, and acid
catalyzed removal of the isopropylidene protective group. The overall
transformation proceeded with retention of the stereochem. to afford only
C-.beta.-glycosyl nucleosides.
IT 69471-81-4P 74615-70-6P 74615-72-8P
74615-75-1P 74615-76-2P 89887-62-7P
89887-63-8P 89919-94-8P 89919-96-0P
89919-97-1P 89919-98-2P 89955-12-4P
89955-13-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 69471-81-4 CAPLUS
CN 4(1H)-Pyrimidinone, 2,3-dihydro-5-.beta.-psicofuranosyl-2-thioxo- (9CI)
(CA INDEX NAME)

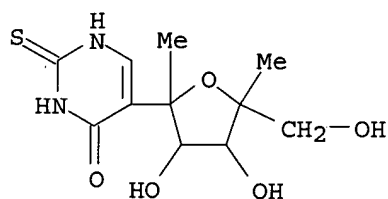


RN 74615-70-6 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-(1-deoxy-5-C-methyl-.beta.-psicofuranosyl)-
(9CI) (CA INDEX NAME)



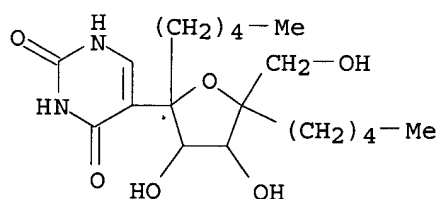
RN 74615-72-8 CAPLUS
CN 4(1H)-Pyrimidinone, 5-(1-deoxy-5-C-methyl-.beta.-psicofuranosyl)-2,3-
dihydro-2-thioxo- (9CI) (CA INDEX NAME)

09567863



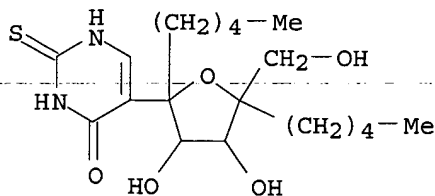
RN 74615-75-1 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[tetrahydro-3,4-dihydroxy-5-(hydroxymethyl)-1,5-dipentyl-2-furanyl]-, (2.alpha.,3.beta.,4.beta.,5.alpha.)- (9CI) (CA INDEX NAME)



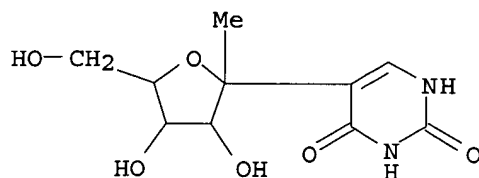
RN 74615-76-2 CAPLUS

CN 4(1H)-Pyrimidinone, 2,3-dihydro-5-[tetrahydro-3,4-dihydroxy-5-(hydroxymethyl)-1,5-dipentyl-2-furanyl]-2-thioxo-, (2.alpha.,3.beta.,4.beta.,5.alpha.)- (9CI) (CA INDEX NAME)



RN 89887-62-7 CAPLUS

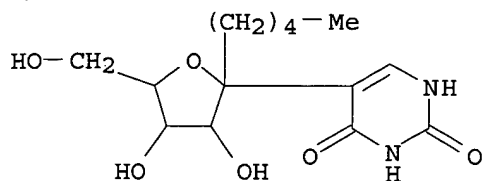
CN 2,4(1H,3H)-Pyrimidinedione, 5-(1-deoxy-.beta.-psicofuranosyl)- (9CI) (CA INDEX NAME)



RN 89887-63-8 CAPLUS

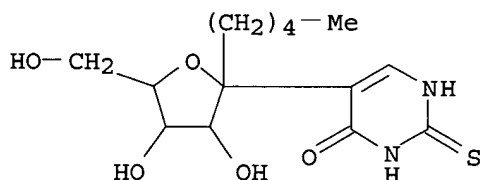
CN 2,4(1H,3H)-Pyrimidinedione, 5-(1-C-pentyl-.beta.-ribofuranosyl)- (9CI) (CA INDEX NAME)

09567863



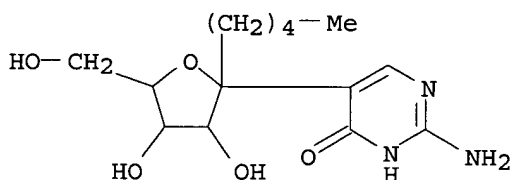
RN 89919-94-8 CAPLUS

CN 4(1H)-Pyrimidinone, 2,3-dihydro-5-(1-C-pentyl-.beta.-ribofuranosyl)-2-thioxo- (9CI) (CA INDEX NAME)



RN 89919-96-0 CAPLUS

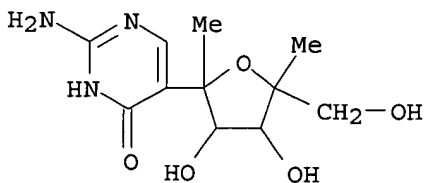
CN 4(1H)-Pyrimidinone, 2-amino-5-(1-C-pentyl-.beta.-ribofuranosyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RN 89919-97-1 CAPLUS

CN 4(1H)-Pyrimidinone, 2-amino-5-(1-deoxy-5-C-methyl-.beta.-psicofuranosyl)-, monohydrochloride (9CI) (CA INDEX NAME)

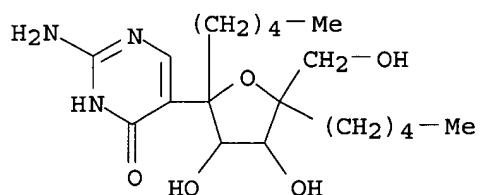


● HCl

RN 89919-98-2 CAPLUS

CN 4(1H)-Pyrimidinone, 2-amino-5-[tetrahydro-3,4-dihydroxy-5-(hydroxymethyl)-1,5-dipentyl-2-furanyl]-, monohydrochloride, (2.alpha.,3.beta.,4.beta.,5.alpha.)- (9CI) (CA INDEX NAME)

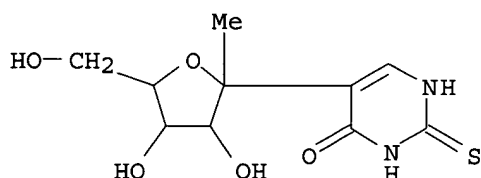
09567863



● HCl

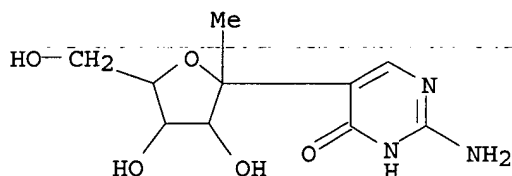
RN 89955-12-4 CAPLUS

CN 4(1H)-Pyrimidinone, 5-(1-deoxy-.beta.-psicofuranosyl)-2,3-dihydro-2-thioxo-
(9CI) (CA INDEX NAME)



RN 89955-13-5 CAPLUS

CN 4(1H)-Pyrimidinone, 2-amino-5-(1-deoxy-.beta.-psicofuranosyl)-,
monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L3 ANSWER 84 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1984:3307 CAPLUS

DN 100:3307

TI Induction of bacterial differentiation by adenine and adenosine analogs
and inhibitors of nucleic acid synthesis

AU Zain-ul-Abedin; Lopez, Juan M.; Freese, Ernst

CS Lab. Mol. Biol., Natl. Inst. Neurol. Commun. Disord. Stroke, Bethesda, MD,
20205, USA

SO Nucleosides & Nucleotides (1983), 2(3), 257-74

CODEN: NUNUD5; ISSN: 0732-8311

DT Journal

LA English

AB Several adenine or adenosine analogs, which inhibited growth and decreased
the intracellular GTP pool, induced sporulation of *Bacillus subtilis*. The
inducers were added to cultures growing in a medium contg. excess NH4+,
glucose, and phosphate in which cells normally cannot differentiate. They

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included compds. modified in the ribose unit (decoyinine, psicofuranine, cordycepin) or substituted within the purine ring or at the N6-position of adenosine (6-methylaminopurine, zeatin, 6-anilinopurine, formycin). Their effects on the cellular concn. of nucleotides were also measured. All the sporulation inducers except formycin A caused a decrease in GMP, GDP, and GTP, some by inhibiting IMP dehydrogenase and others by inhibiting GMP synthetase. In contrast, formycin A caused an increase in GMP, whereas GDP and GTP decreased. Therefore, the compd. (signal) controlling sporulation is GDP or GTP but not GMP. Antibiotics inhibiting growth by direct inhibition of nucleic acid synthesis did not induce sporulation.

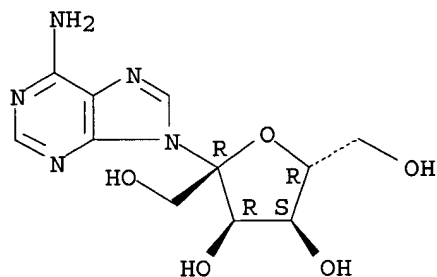
IT 1874-54-0

RL: BIOL (Biological study)
(bacterial differentiation induction by)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 85 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1983:207883 CAPLUS

DN 98:207883

TI X-ray crystallographic studies of nucleoside analogs. III. The crystal structure of 1-(2-.beta.-D-psicofuranosyl)cytosine dihydrate, C10H15N3O6.2H2O

AU Gurskaya, G. V.; Dzhabadova, G. M.; Zavgorodnii, S. G.; Tsilevich, T. L.; Gottikh, B. P.

CS Inst. Mol. Biol., Moscow, B-334, USSR

SO Crystal Structure Communications (1982), 11(4, Pt. A), 1259-64

CODEN: CSCMCS; ISSN: 0302-1742

DT Journal

LA English

AB The title compd. is orthorhombic, space group P21212, with a 7.719(3), b 24.691(3), and c 7.010(1) .ANG.; Z = 4. The structure was solved by direct methods and refined by full-matrix least squares to a final R = 0.040. At. coordinates are given. Bond lengths and angles are compared to those of .alpha.- and .beta.-cytidine. The cytosine is nearly planar. The presence of a hydroxymethyl group on the ribose group does not cause any basic conformational changes.

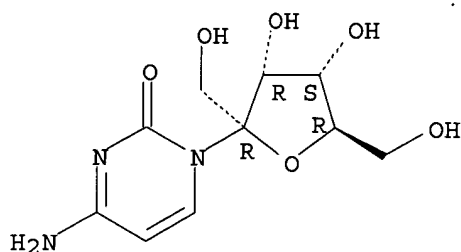
IT 85877-85-6

RL: PRP (Properties)
(structure of)

RN 85877-85-6 CAPLUS

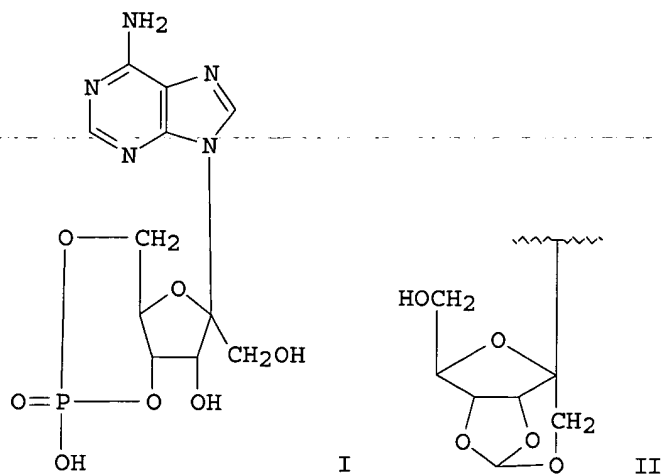
CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-psicofuranosyl-, dihydrate (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



● 2 H₂O

L3 ANSWER 86 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1982:563405 CAPLUS
 DN 97:163405
 TI Synthesis of psicofuranine cyclic 4',6'-monophosphate
 AU Sturm, Priscilla A.; Reist, Elmer J.; Miller, Jon P.
 CS Bio-Org. Chem. Lab., SRI Int., Menlo Park, CA, 94025, USA
 SO Journal of Organic Chemistry (1982), 47(22), 4367-70
 CODEN: JOCEAH; ISSN: 0022-3263
 DT Journal
 LA English
 GI



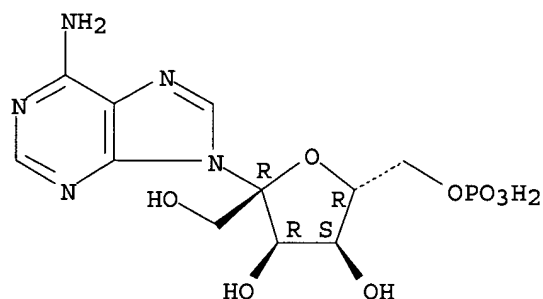
AB Psicofuranine cyclic monophosphate I was prepd. from psicofuranine II by phosphorylation with POCl₃ followed by cyclization with DCC in refluxing pyridine. This is the first nucleotide synthesis of the acid and alk. labile nucleoside, psicofuranine, as well as the first prepn. of an analog of the key hormonal regulator, adenosine cyclic 3',5'-monophosphate, with modification at the C-1' functionality.

IT **16638-76-9P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and cyclization of)

RN 16638-76-9 CAPLUS
 CN 9H-Purin-6-amine, 9-(6-O-phosphono-.beta.-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.



L3 ANSWER 87 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1982:69361 CAPLUS

DN 96:69361

TI New synthesis of antibiotic psicofuranine

AU Aleksandrova, L. A.; Lichtenthaler, F. W.

CS Inst. Mol. Biol., Moscow, 117984, USSR

SO Nucleic Acids Symposium Series (1981), 9, 263-6

CODEN: NACSD8; ISSN: 0261-3166

DT Journal

LA English

AB Psicofuranine (angustmycin C, 6-amino-9-.beta.-D-psicofuranosylpurine) and its .alpha.-anomer were obtained with a total yield of 64% by condensation of bis(trimethylsilyl)-N6-benzoyladenine with 1,2,3,4,6'-penta-O-benzoylpsicofuranine followed by deblocking provided both anomers of psicofuranine in a .alpha.:.beta. = 1:2 ratio.

IT 80614-91-1P 80614-92-2P

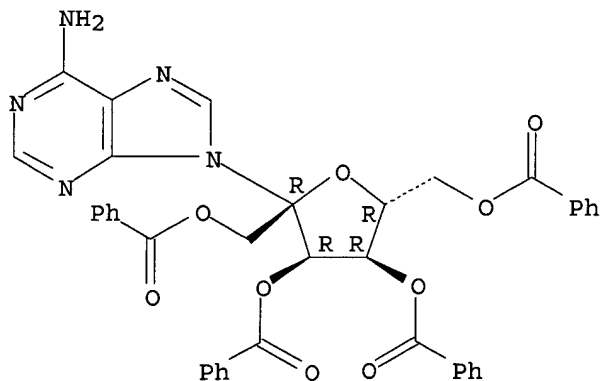
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and debenzoylation of)

RN 80614-91-1 CAPLUS

CN 9H-Purin-6-amine, 9-(1,3,4,6-tetra-O-benzoyl-.beta.-D-psicofuranosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

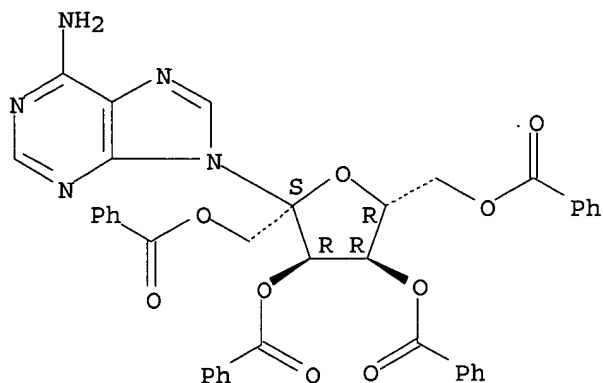


RN 80614-92-2 CAPLUS

CN 9H-Purin-6-amine, 9-(1,3,4,6-tetra-O-benzoyl-.alpha.-D-psicofuranosyl)-(9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.



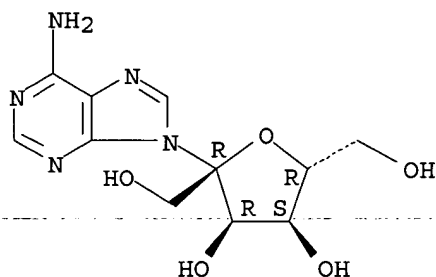
IT 1874-54-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, from adenine deriv. and psicofuranose pentabenzoyl)

L3 ANSWER 88 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1981:596958 CAPLUS

DN 95:196958

TI Some newer antibiotics

AU Bhusari, Kishore P.

CS Dep. Pharm. Sci., Nagpur Univ., Nagpur, 440010, India

SO Indian Journal of Hospital Pharmacy (1981), 18(4), 122-5

CODEN: IJHPBU; ISSN: 0019-526X

DT Journal; General Review

LA English

AB A review with 37 refs. on albomycin [1414-39-7], psicofuranine [1874-54-0], phleomycin [11006-33-0], xanthomycin [13040-98-7], and aurantin [12619-61-3].

IT 1874-54-0

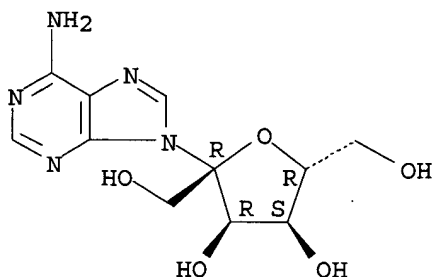
RL: BIOL (Biological study))

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



L3 ANSWER 89 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1981:587572 CAPLUS
DN 95:187572
TI A novel type of anhydronucleosides to model syn conformers of natural nucleosides
AU Zavgorodny, Sergey G.
CS Inst. Mol. Biol., Moscow, 117 984, USSR
SO Tetrahedron Letters (1981), 22(31), 3003-6
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The anhydronucleoside I with syn-orientation of the base, was prepd. by sequential mercururation, iodination, and cyclization of the corresponding cytosine II. The 3-step prepn. of the adenine anhydronucleoside III from psicofuranine is also reported.

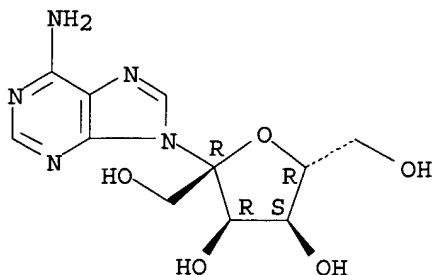
IT 1874-54-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(acetylation of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 53318-75-5

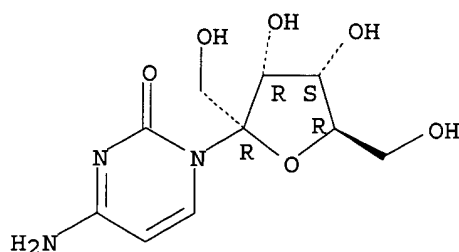
RL: RCT (Reactant); RACT (Reactant or reagent)
(mercururation and iodination of)

RN 53318-75-5 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.



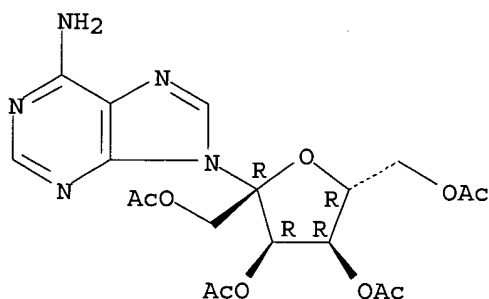
IT 79060-74-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and bromination of)

RN 79060-74-5 CAPLUS

CN 9H-Purin-6-amine, 9-(1,3,4,6-tetra-O-acetyl-beta-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

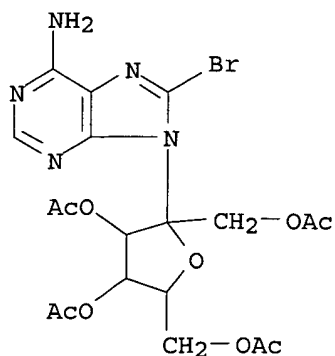


IT 79060-72-3P 79060-76-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of, anhydronucleoside by)

RN 79060-72-3 CAPLUS

CN 9H-Purin-6-amine, 8-bromo-9-(1,3,4,6-tetra-O-acetyl-beta-D-psicofuranosyl)- (9CI) (CA INDEX NAME)

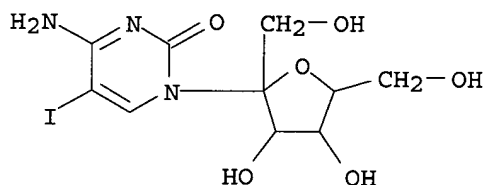


RN 79060-76-7 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-5-iodo-1-beta-D-psicofuranosyl- (9CI) (CA

09567863

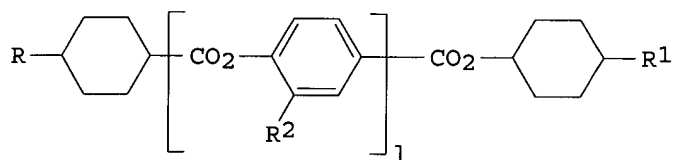
INDEX NAME)



L3 ANSWER 90 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1981:578693 CAPLUS
 DN 95:178693
 TI Liquid crystalline substituted 4-[trans-4-n-alkylcyclohexanoyloxy]-trans-n-alkylcyclohexane or 4-[trans-4-n-alkylcyclohexanoyloxy]-3-substituted-benzoyloxy-[trans-4-n-alkylcyclohexane]
 IN Schubert, Herrmann; Deutscher, Hans Joachim; Kresse, Horst; Demus, Dietrich; Altmann, Heinz; Koerber, Marlies; Boettger, Ute
 PA VEB Werk fuer Fernsehelektronik, Ger. Dem. Rep.; VEB Kombinat Mikroelektronik
 SO Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3034222	A1	19810402	DE 1980-3034222	19800911
	DD 146041	Z	19810121	DD 1979-215743	19790924
PRAI	DD 1979-215742		19790924		
	DD 1979-215743		19790924		

GI

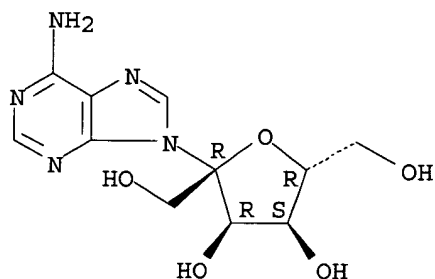


I

AB 4-[trans-4-Alkylcyclohexanoyloxy]-trans-alkylcyclohexanes or 4-[trans-4-alkylcyclohexanoyloxy]-3-substituted benzoyloxy-trans-4-alkylcyclohexanes (I; R, R1 = C1-10 alkyl; R2 = H, Me, Et, Cl, Br; l = 0, 1) are described for use in nematic liq. crystal compns. for electrooptical display devices. Thus, trans-4-propylcyclohexyl trans-4-pentylcyclohexanecarboxylate (prepd. by treating trans-4-propylcyclohexanol with trans-4-pentylcyclohexanecarbonyl chloride at 0-60.degree. in the presence of a dry base) was in the cryst. solid state at 23-29.degree., the smectic state at 37.5.degree., and the nematic state at 52.5.degree..
 IT 1874-54-0 53318-75-5
 RL: PRP (Properties)
 (liq. cryst. properties of)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

09567863

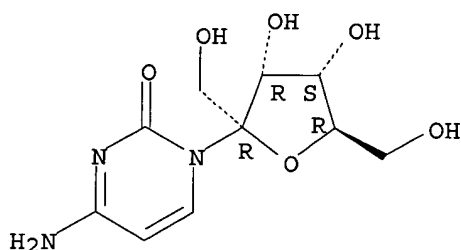
Absolute stereochemistry.



RN 53318-75-5 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 91 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1981:551075 CAPLUS

DN 95:151075

TI New type of anhydronucleosides modeling syn-conformers of natural nucleosides

AU Zavgorodnii, S. G.

CS Inst. Mol. Biol., Moscow, USSR

SO Doklady Akademii Nauk SSSR (1981), 257(1), 117-19 [Chem.]

CODEN: DANKAS; ISSN: 0002-3264

DT Journal

LA Russian

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB 1-(.beta.-D-Psicofuranosyl)cytosine (I, R = H) was treated with Hg acetate with subsequent iodomercuration to give 75% I (R = iodo) which was easily cyclized by KOAc in Me₂SO at 60.degree. to give 60% anhydrocytosine II. Acetylation of III (R = R1 = H) gave 93% III (R = Ac, R1 = H) which was brominated to give 63% III (R = Ac, R1 = Br) which was cyclized at room temp. by methanolic ammonia to give 51% IV.

IT 1874-54-0P

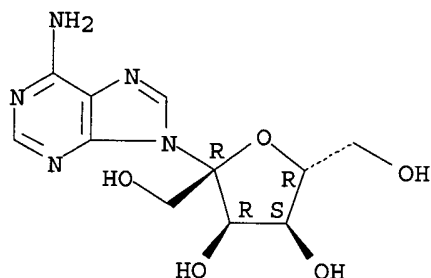
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and acetylation of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.



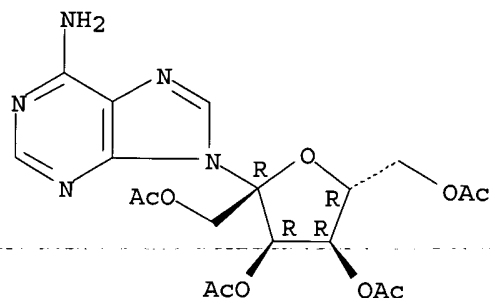
IT 79060-74-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and bromination of)

RN 79060-74-5 CAPLUS

CN 9H-Purin-6-amine, 9-(1,3,4,6-tetra-O-acetyl-.beta.-D-psicofuranosyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

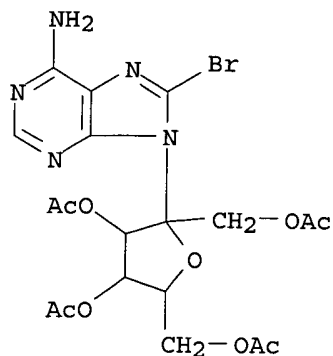


IT 79060-72-3P 79060-76-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of)

RN 79060-72-3 CAPLUS

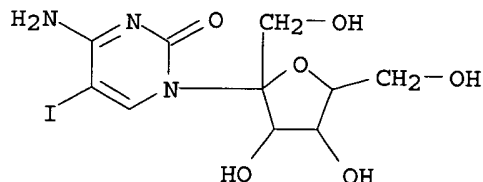
CN 9H-Purin-6-amine, 8-bromo-9-(1,3,4,6-tetra-O-acetyl-.beta.-D-psicofuranosyl)-(9CI) (CA INDEX NAME)



09567863

RN 79060-76-7 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-5-iodo-1-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)



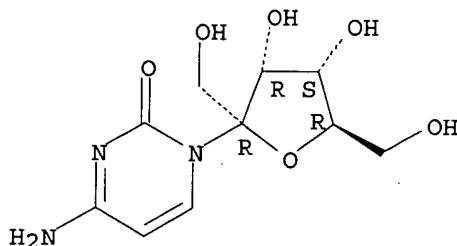
IT 53318-75-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. and iodination of)

RN 53318-75-5 CAPLUS

CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 92 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1981:192629 CAPLUS

DN 94:192629

TI Effect of the structure of the glycon on the acid-catalyzed hydrolysis of adenine nucleosides

AU York, J. Lyndal

CS Dep. Biochem., Univ. Arkansas Med. Sci., Little Rock, AR, 72205, USA

SO Journal of Organic Chemistry (1981), 46(10), 2171-3

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA English

AB The second order rate consts. were detd. for the acid-catalyzed hydrolysis at 40.degree. of 10 adenine furanosides and 1 pyranoside. Lability of the glycosyl-adenine bond was correlated with the configuration of the adenine with respect to the 2' and/or 3' hydroxyls, the sterically unfavorable all cis arrangement being most labile. Removal of the 2', 3', or 5' hydroxyls increases the rate of hydrolysis. A reverse D solvent isotope effect was obsd. for the anomeric 2'-deoxyribonucleosides. The entropy of activation was + 1.16 eu and + 4.39 eu for the furanoside and pyranoside of .beta. and .alpha.-2'-deoxyribosyladenine, resp. The data are consistent with the A-1 mechanism of hydrolysis.

IT 1874-54-0

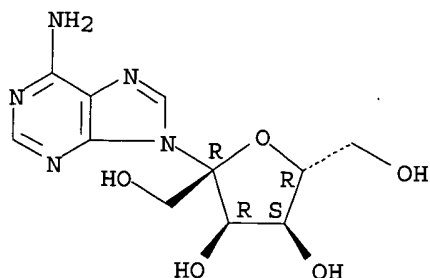
RL: RCT (Reactant); RACT (Reactant or reagent) (acid-catalyzed hydrolysis of, kinetics of)

RN 1874-54-0 CAPLUS

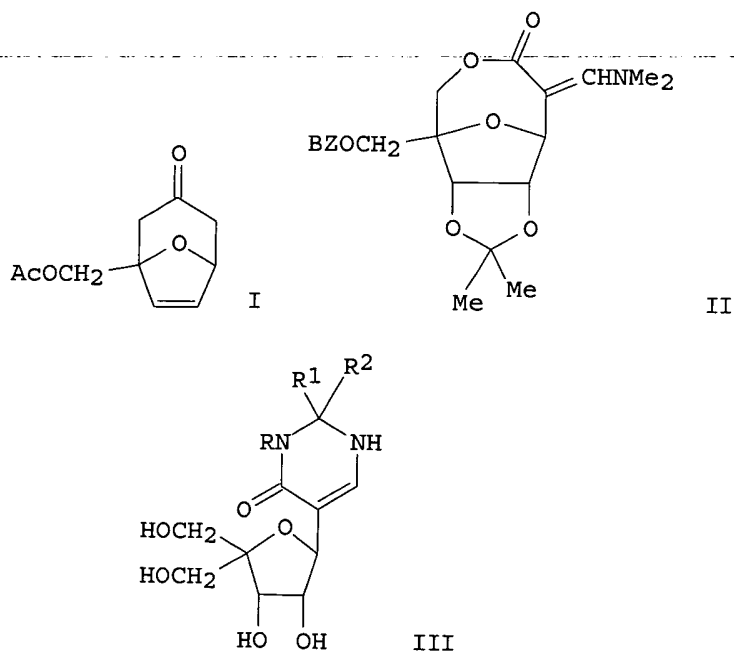
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

09567863

Absolute stereochemistry.



L3 ANSWER 93 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1981:140086 CAPLUS
DN 94:140086
TI C-Nucleoside synthesis. 13. Synthesis of 4'-hydroxymethylated pyrimidine
ribo-C-nucleosides
AU Sato, T.; Noyori, R.
CS Dep. Chem., Nagoya Univ., Nagoya, 464, Japan
SO Tetrahedron Letters (1980), 21(26), 2535-8
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
GI



AB The [3+4] reductive cyclocoupling of (Br₂CH)₂CO and furfuryl acetate gave the bicyclic ketone I, which underwent sequential isopropylidenation, deacetylation, silylation, Baeyer-Villiger oxidn., benzylation and condensation with Me₃COCH(NMe₂)₂ to give the lactone II. II underwent

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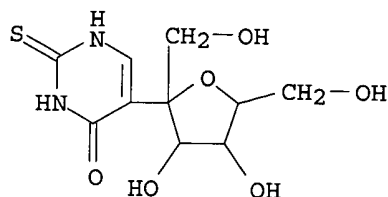
cyclization with urea, thiourea, and guanidine followed by deprotection to give the nucleosides III (R = H, R1R2 = O, S; RR1 = bond, R2 = NH2, resp.).

IT 76945-89-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 76945-89-6 CAPLUS

CN 4(1H)-Pyrimidinone, 2,3-dihydro-5-.beta.-L-psicofuranosyl-2-thioxo- (9CI)
(CA INDEX NAME)



L3 ANSWER 94 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1980:560970 CAPLUS

DN 93:160970

TI Adenosine receptor activation in human fibroblasts: nucleoside agonists and antagonists

AU Bruns, Robert F.

CS Dep. Neurosci., Univ. California, La Jolla, CA, 92093, USA

SO Canadian Journal of Physiology and Pharmacology (1980), 58(6), 673-91
CODEN: CJPPA3; ISSN: 0008-4212

DT Journal

LA English

AB Adenosine [58-61-7] (ED50 15 .mu.M) causes a 50-fold increase in intracellular cyclic AMP in the VA13 human fibroblast line. A total of 128 nucleosides was tested as agonists and antagonists. Eight classes of compds. were found: full agonists (14 compds.), weak agonists (20), high-efficacy partial agonists (16), low-efficacy partial agonists (7), competitive inhibitors (11), noncompetitive inhibitors (3), partial agonist - noncompetitive inhibitors (3), and inactive compds. (54). The noncompetitive inhibitors antagonized the responses to adenosine, isoproterenol, and prostaglandin E1 and thus may have been adenylate cyclase inhibitors. The most potent noncompetitive inhibitor, 2',5'-dideoxyadenosine [6698-26-6] was a partial inhibitor, reducing the response to isoproterenol by only 77% even at very high concns. The most potent agonists, partial agonists, and pure antagonists had apparent affinities of about 5 .mu.M. Although all positions were important for affinity at the adenosine receptor, only the 3'- and 5'-positions and to a much lesser extent the 6- and 8-positions had an effect on efficacy. The receptor tolerated bulky groups at the 6-position of adenosine, had an Et-sized pocket near the 5'-position, and had little bulk tolerance towards modifications at other positions. Among the full agonists, only one 5'-deriv. and one 2-position deriv. had higher apparent affinity than adenosine. Studies with conformationally restricted agonists and antagonists showed that adenosine must be in the anti conformation in order to bind to the receptor.

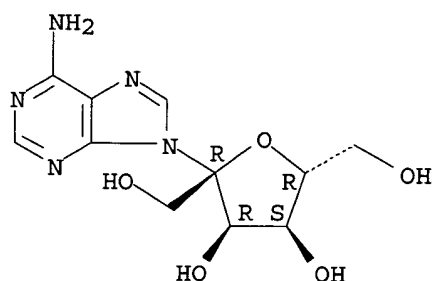
IT 1874-54-0

RL: BIOL (Biological study)
(adenosine receptor response to, structure in relation to)

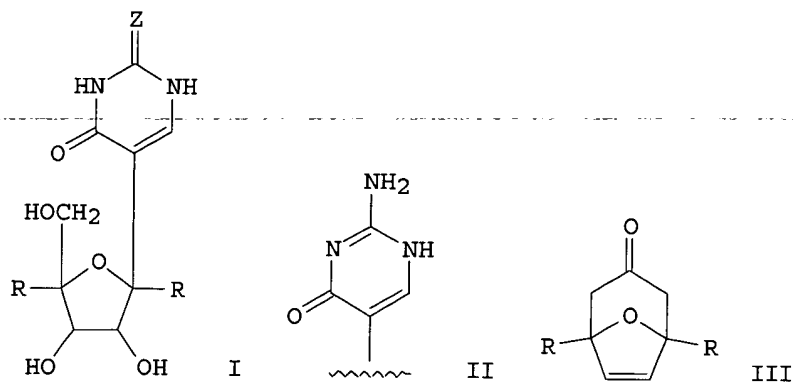
RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

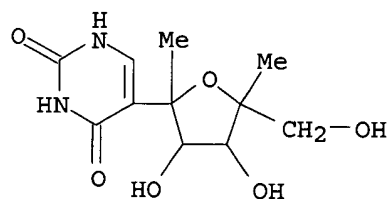


L3 ANSWER 95 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1980:495564 CAPLUS
 DN 93:95564
 TI C-Nucleoside synthesis. 12. Stereocontrolled synthesis of
 1',4'-dialkylated pyrimidine ribo-C-nucleosides
 AU Sato, Tsuneo; Watanabe, Makoto; Noyori, Ryoji
 CS Dep. Chem., Nagoya Univ., Nagoya, 464, Japan
 SO Chemistry Letters (1980), (6), 679-82
 CODEN: CMLTAG; ISSN: 0366-7022
 DT Journal
 LA English
 GI



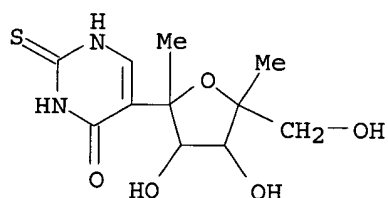
AB The first, stereocontrolled entry to 1',4'-dialkylated pyrimidine
 C-nucleosides is outlined. Nucleosides I (Z = O, R = Me, n-C5H11; Z = S,
 R = Me, n-C5H11) and II (R as before) were prepd. starting from ketone
 III.
 IT 74615-70-6P 74615-72-8P 74615-73-9P
 74615-75-1P 74615-76-2P 74615-77-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 74615-70-6 CAPLUS
 CN 2,4(1H,3H)-Pyrimidinedione, 5-(1-deoxy-5-C-methyl-.beta.-psicofuranosyl)-
 (9CI) (CA INDEX NAME)

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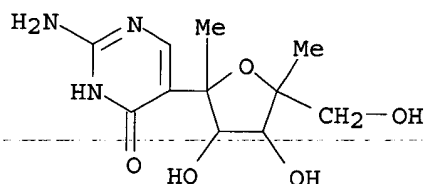
RN 74615-72-8 CAPLUS

CN 4(1H)-Pyrimidinone, 5-(1-deoxy-5-C-methyl-.beta.-psicofuranosyl)-2,3-dihydro-2-thioxo- (9CI) (CA INDEX NAME)



RN 74615-73-9 CAPLUS

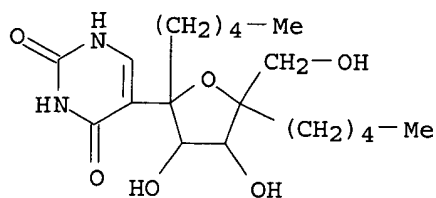
CN 4(1H)-Pyrimidinone, 2-amino-5-[1-deoxy-5-C-methyl-3,4-O-(1-methylethylidene)-.beta.-psicofuranosyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 74615-75-1 CAPLUS

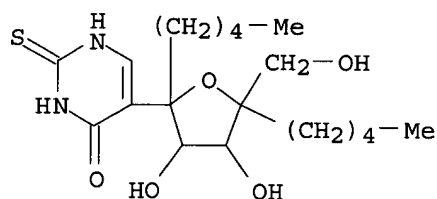
CN 2,4(1H,3H)-Pyrimidinedione, 1-[tetrahydro-3,4-dihydroxy-5-(hydroxymethyl)-1,5-dipentyl-2-furanyl]-, (2.alpha.,3.beta.,4.beta.,5.alpha.)- (9CI) (CA INDEX NAME)



RN 74615-76-2 CAPLUS

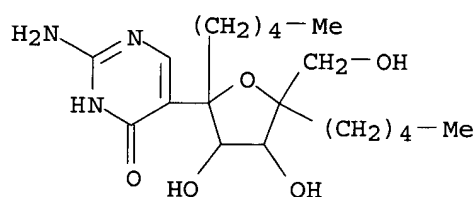
CN 4(1H)-Pyrimidinone, 2,3-dihydro-5-[tetrahydro-3,4-dihydroxy-5-(hydroxymethyl)-1,5-dipentyl-2-furanyl]-2-thioxo-, (2.alpha.,3.beta.,4.beta.,5.alpha.)- (9CI) (CA INDEX NAME)

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RN 74615-77-3 CAPLUS

CN 4(1H)-Pyrimidinone, 2-amino-5-[tetrahydro-3,4-dihydroxy-5-(hydroxymethyl)-1,5-dipentyl-2-furanyl]-, hydrochloride, (2.alpha.,3.beta.,4.beta.,5.alpha.)- (9CI) (CA INDEX NAME)



●x HCl

L3 ANSWER 96 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1980:191969 CAPLUS

DN 92:191969

TI Inhibition of uptake of adenosine into human blood platelets

AU Lips, Joost P. M.; Sixma, Jan J.; Trieschnigg, Annemieke C.

CS Dep. Haematol., Univ. Hosp., Utrecht, Neth.

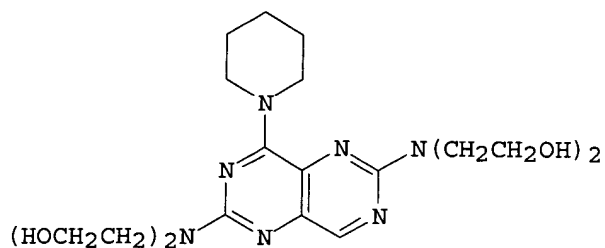
SO Biochemical Pharmacology (1980), 29(1), 43-50

CODEN: BCPCA6; ISSN: 0006-2952

DT Journal

LA English

GI



I

AB Expts. on the inhibition of adenosine [58-61-7] uptake into human blood platelets by differently substituted purine nucleosides, purines, and analogs, e.g. psicofuranine [1874-54-0], 6,6-N,N-dimethylaminopurine [938-55-6], and RA 233 (I) [13665-88-8], resp., showed that the high and low affinity uptake systems were mainly inhibited by nucleosides and purines, resp. For both uptake systems an intact purine ring system was required. Detailed mol. structure-biol. activity

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relations are discussed. The pyrimido pyrimidine drugs I, RA 8 [58-32-2], and RA 433 [13665-58-2] inhibited adenosine transport by the high affinity system.

IT 1874-54-0

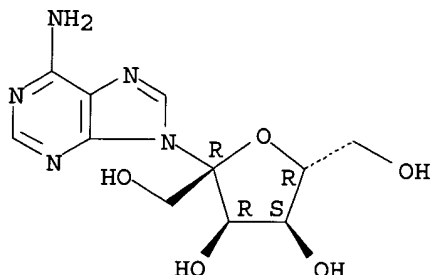
RL: PRP (Properties)

(adenosine transport by blood platelet inhibition by, structure in relation to)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 97 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1980:175772 CAPLUS

DN 92:175772

TI Fungicidal compositions containing angustmycin

PA Ajinomoto Co., Inc., Japan

SO Fr. Demande, 9 pp.

CODEN: FRXXBL

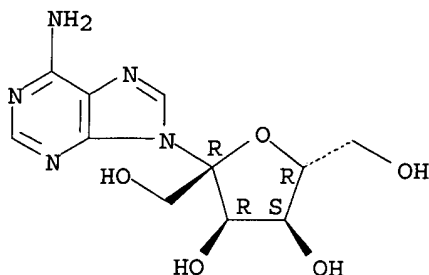
DT Patent

LA French

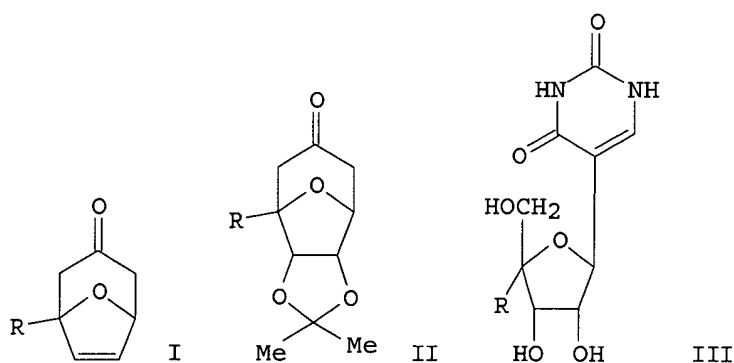
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2427787	A1	19800104	FR 1978-17055	19780607
PRAI	FR 1978-17055		19780607		
AB	Angustmycin A [2004-04-8] and/or angustmycin C [1874-54-0] are bactericides and fungicides. Thus, 500 ppm angustmycin C totally prevented the infestation of cucurbits by Pseudomonas lachrymans.				
IT	1874-54-0				
	RL: BIOL (Biological study) (bactericide and fungicide)				
RN	1874-54-0	CAPLUS			
CN	9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



L3 ANSWER 98 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1980:164211 CAPLUS
 DN 92:164211
 TI C-Nucleoside synthesis. Part VI. A stereocontrolled synthesis of C-4' alkylated pyrimidine C-nucleosides
 AU Sato, T.; Watanabe, M.; Noyori, R.
 CS Dep. Chem., Nagoya Univ., Nagoya, 464, Japan
 SO Tetrahedron Letters (1979), (31), 2897-900
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA English
 GI

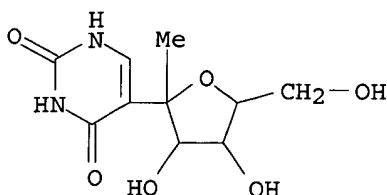


AB The bicyclic ketones I (R = Me, pentyl), prepd. by cyclocoupling between (Br₂CH)₂CO and 2-methyl- and 2-pentylfuran, resp., underwent stereospecific reaction with Me₂CO/CuSO₄/p-MeC₆H₄SO₃H to give acetonides II. II on sequential Baeyer-Villiger oxidn., dimethylaminomethylenation, reaction with urea, and hydrolysis gave the pseudouridines. C-1' alkylated C-nucleosides were prepd. analogously but in lower yield. Pseudocytidine and -thiouridine analogs were prepd. by using guanidine and thiourea, resp., in place of urea.

IT 73350-74-0P 73350-75-1P 73350-76-2P
 73350-87-5P 73350-88-6P 73350-89-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)

RN 73350-74-0 CAPLUS

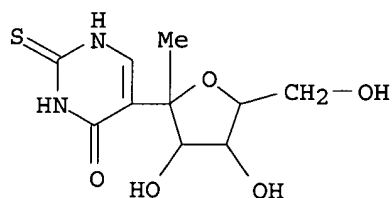
CN 2,4(1H,3H)-Pyrimidinone, 5-(1-deoxy-.beta.-L-psicofuranosyl)- (9CI)
 (CA INDEX NAME)



RN 73350-75-1 CAPLUS

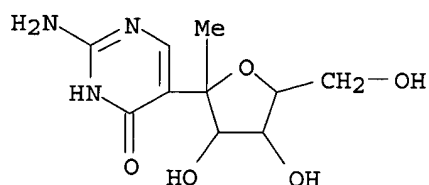
CN 4(1H)-Pyrimidinone, 5-(1-deoxy-.beta.-L-psicofuranosyl)-2,3-dihydro-2-thioxo- (9CI) (CA INDEX NAME)

09567863



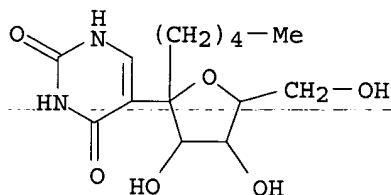
RN 73350-76-2 CAPLUS

CN 4(1H)-Pyrimidinone, 2-amino-5-(1-deoxy-.beta.-L-psicofuranosyl)- (9CI)
(CA INDEX NAME)



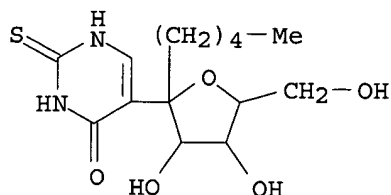
RN 73350-87-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 5-(1-C-pentyl-.beta.-L-ribofuranosyl)- (9CI)
(CA INDEX NAME)



RN 73350-88-6 CAPLUS

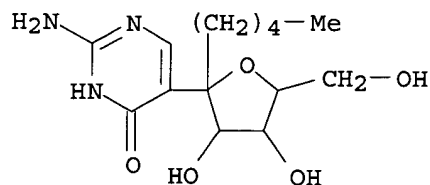
CN 4(1H)-Pyrimidinone, 2,3-dihydro-5-(1-C-pentyl-.beta.-L-ribofuranosyl)-2-thioxo- (9CI) (CA INDEX NAME)



RN 73350-89-7 CAPLUS

CN 4(1H)-Pyrimidinone, 2-amino-5-(1-C-pentyl-.beta.-L-ribofuranosyl)-, monohydrochloride (9CI) (CA INDEX NAME)

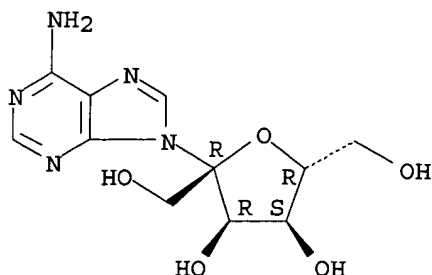
09567863



● HCl

L3 ANSWER 99 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1980:353 CAPLUS
DN 92:353
TI Coronary vasoactivity of adenosine in the conscious dog
AU Olsson, Ray A.; Khouri, Edward M.; Bedynek, Julius L., Jr.; McLean, John
CS Dep. Cardiorespiratory Dis., Walter Reed Army Inst. Res., Washington, DC, USA
SO Circulation Research (1979), 45(4), 468-78
CODEN: CIRUAL; ISSN: 0009-7330
DT Journal
LA English
AB Intracoronary adenosine [58-61-7] infusions into conscious dogs produced half-maximal coronary vasodilation at 0.57 .mu.M, similar activity was shown by 1.01 .mu.M adenosine in open-chest dogs. In both preps., adenosine at concns. in the range found in cardiac muscle by direct anal. produced coronary vasodilation equal to that attained during a max. reactive hyperemic response. The quant. structure-activity relationship technique was applied to data on the coronary vasoactivity of 68 adenosine analogs to identify the chem. features of this mol. that det. its vasoactivity. These are: (1) the size of the purine base; (2) the inductive effect of the C-2 substituent; (3) the electron-withdrawing effect of the C-6 substituent; (4) the glycosylic torsion angle; (5) the ability of the C-2' and C-3'-hydroxyls to participate in H bonding; (6) the absence of sterically hindering groups in the vicinity of C-2' and, more importantly, C-3'; and (7) the inductive effect of the C-5' substituent. The hydrophobicity of these analogs did not correlate with vasoactivity. The hydrophilicity of the ribose moiety apparently overshadows any hydrophobic influence of the very weakly arom. purine base.
IT 1874-54-0
RL: BIOL (Biological study)
(heart circulation response to, adenosine in relation to)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

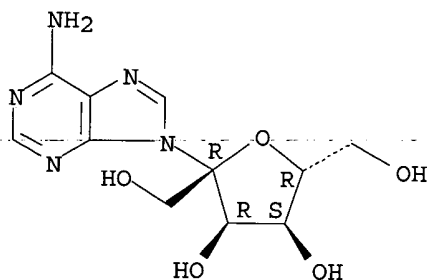


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L3 ANSWER 150 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1965:419462 CAPLUS
 DN 63:19462
 OREF 63:3477g-h,3478b
 TI Nucleosides. XXV. Chemistry of gougerotin
 AU Fox, Jack J.; Kuwada, Yutaka; Watanabe, Kyoichi A.; Ueda, Tohru; Whipple, Earl B.
 CS Sloan-Kettering Inst. for Cancer Res., New York, NY
 SO Antimicrobial Agents Chemotherapy (1965), Volume Date 1964, (Oct.), 518-29
 DT Journal
 LA English
 AB cf. CA 62, 16357e. The proposed structure for gougerotin as 1-(N-sarcosyl-1-cytosinyl)-3-D-scrylamino-1,3-dideoxy-.beta.-D-allopyranuronamide was shown to be incorrect. The present report establishes the presence in gougerotin of a dipeptide (sarcosyl-D-serine) in acylamino linkages to a 4-amino-4-deoxyhexouronic acid amide of the galactopyranosyl configuration. Thus, all the known pyrimidine nucleoside antibiotics (elaborated by Streptomyces) have several structural features in common: all contain cytosine and 4-aminohexose moieties. Unlike the pyrimidine nucleoside antibiotics, amicitin and blasticidin S, gougerotin was without antitumor activity in several exptl. tumors tested.
 IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- (biol. activity of)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

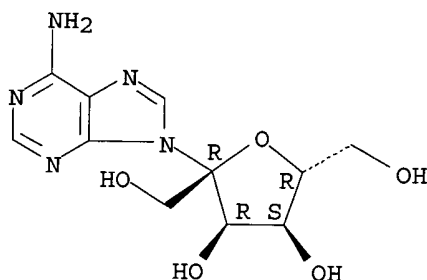


L3 ANSWER 151 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1965:417852 CAPLUS
 DN 63:17852
 OREF 63:3190d-f
 TI The mechanism of feedback inhibition of purine biosynthesis de novo in Ehrlich ascites tumor cells in vitro
 AU Henderson, J. Frank; Khoo, Mary K. Y.
 CS Univ. Alberta Cancer Res. Unit, Edmonton, Can.
 SO J. Biol. Chem. (1965), 240(7), 3104-9
 DT Journal
 LA English
 AB In tumor cells which cannot convert hypoxanthine and guanine to ribonucleotides, these purines lack the potent feedback inhibitory activities on the pathway of purine biosynthesis de novo that they express in other tumor cells, providing further evidence that only ribonucleotides are active inhibitors. Partial inhibition of the conversion of inosinate to adenylate partially prevents the expression of feedback inhibitory activity by hypoxanthine, suggesting that inosinate is not itself an active inhibitor. Of a variety of purine analogs shown to inhibit purine biosynthesis de novo, only 2,6-benzylthiopurine and tubercidin do this by

inhibiting the synthesis of 5-phosphoribosylpyrophosphate (PP-ribose-P). A comparison between the feedback inhibitory activity and rate of reaction with PP-ribose-P by purine analogs suggests that purine biosynthesis de novo is not inhibited by diverting PP-ribose-P from this pathway. PP-ribose-P amidotransferase activity in intact tumor cells is measured by detn. of PP-ribose-P levels in the presence of glutamine or NH_4Cl . The feedback inhibitor, methylthioinosine, inhibits this reaction when glutamine is substrate in a manner similar to that of a known inhibitor of this enzyme, 6-diazo-5-oxo-L-norleucine. Psicofuranine, which is not a feedback inhibitor, has no effect on the activity of this enzyme. When NH_4Cl is used in place of glutamine, however, psicofuranine is a potent inhibitor, whereas methylthioinosine is inactive. These results in general support the hypothesis of Wyngaarden that PP-ribose-P amidotransferase is the locus of feedback control of purine biosynthesis de novo (W., et al., CA 53, 22156b; McCollister, et al., CA 60, 13487a; Caskey, et al., CA 61, 4646g).

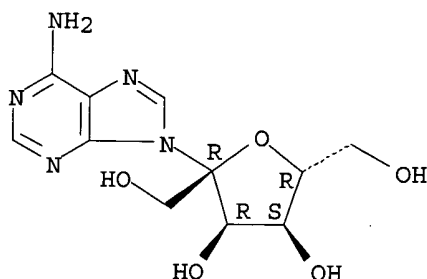
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
 (in adenine ribonucleotide formation by carcinoma)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 152 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1965:68393 CAPLUS
 DN 62:68393
 OREF 62:12190g-h
 TI Biosynthesis of psicofuranine
 AU Sugimori, T.; Suhadolnik, R. J.
 CS Albert Einstein Med. Center, Philadelphia, PA
 SO J. Am. Chem. Soc. (1965), 87(5), 1136-7
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 AB Adenosine does not serve as a direct precursor in the biosynthesis of psicofuranine by *Streptomyces hygroscopicus*, because of lack of incorporation of formate- ^{14}C into D-psicose. D-Psicose arises from glucose or a nucleotide-hexose intermediate.
 IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
 (formation by *Streptomyces hygroscopicus*)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 153 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1965:24512 CAPLUS

DN 62:24512

OREF 62:4429c-e

TI Metabolism of purine nucleoside analogs

AU LePage, G. A.; Junga, Irene G.

CS Stanford Res. Inst., Menlo Park, CA

SO Cancer Res. (1965), 25, 46-52

DT Journal

LA English

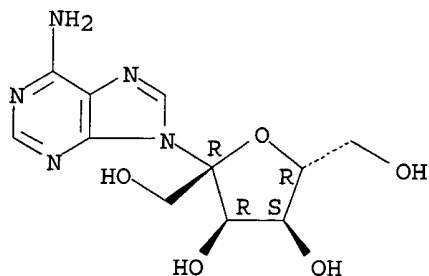
AB A no. of expts. were conducted to det. the effects of structural modifications on the cleavage of nucleosides. Some of the adenine nucleosides included in the investigation were substrates for adenosine deaminase. A study of the cleavage of ribosides and 2'-deoxy-ribosides of thioguanine, adenine, and 6-mercaptopurine was made in mouse tissues. Evidence indicated that this was a phosphorylytic cleavage. Changes in the sugar moiety from ribose or 2'-deoxyribose to xylose, arabinose, 3'-deoxyribose, 5'-deoxyallose, or 6'-deoxyallose prevented the cleavage. A shift in the ribose linkage from position 9 to 7 of the purine prevented cleavage, as did esterification of the ribose moiety. The nucleoside phosphorylase was active in both the .alpha.- and .beta.- anomers of 2'-deoxythioguanosine and 2'-deoxyribosyl-6-mercaptopurine. The relative rates of cleavage of these anomers varied with the tissue source. The adenosine deaminase of mouse tissues was active on .beta.-anomers, but not on .alpha.-anomers. Changes in the sugar moiety of adenosine decreased or abolished the adenosine deaminase activity. The Km values were detd. for ribosyl, arabinosyl, and xylosyl adenine. The substrate affinity was of a higher order for ribosyl adenine, and as a result it was demonstrated that ribosyl adenine could be used in combination with xylosyl or arabinosyl adenine to protect the latter 2 analogs from the adenosine deaminase of mouse blood, so that they were able to reach subcutaneous tumors via the circulation and produce inhibitory effects not otherwise possible.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(metabolism of)

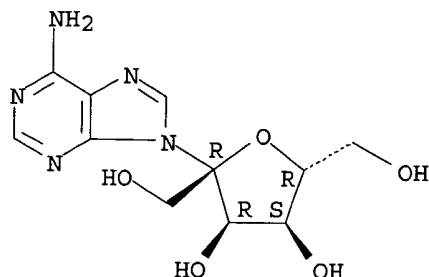
RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



09567863



L3 ANSWER 154 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1964:477738 CAPLUS

DN 61:77738

OREF 61:13580f-h

TI A separate antibiotic-binding site in xanthosine-5'-phosphate aminase. Inhibitor- and substrate-binding studies

AU Fukuyama, T. T.; Moyed, H. S.

CS Univ. of Southern California, Los Angeles

SO Biochemistry (1964), 3(10), 1488-92

DT Journal

LA Unavailable

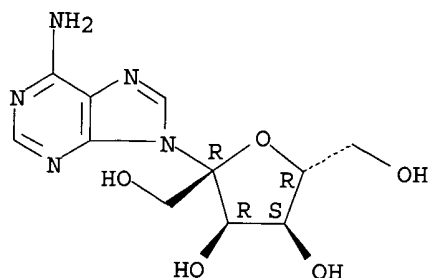
AB A direct examn. was made of the interaction between xanthosine-5'-phosphate (I) aminase, its inhibitor (the antibiotic psicofuranine (II)), and its substrates. II binding by the aminase, like II inhibition, was greatly stimulated by I, in cooperation with one of the products, inorg. pyrophosphate. The inhibited complex contained equimolar amts. of I, pyrophosphate, and II. Elevated levels of adenosine triphosphate or NH₃, the amino donor for the aminase, reduced inhibitory effect of II but not its binding to the enzyme. It is likely that the antagonistic effect of these substrates was indirect, the result of more rapid depletion of I, a compd. necessary for full expression of the inhibitory action of II. The binding studies showed that the primary interaction of the aminase with II was a noncompetitive process. This suggested that II was recognized by a special site or area of the aminase whose normal function was the recognition of a metabolic regulator.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- (guanylic synthetase binding of, site for)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 155 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1964:463475 CAPLUS

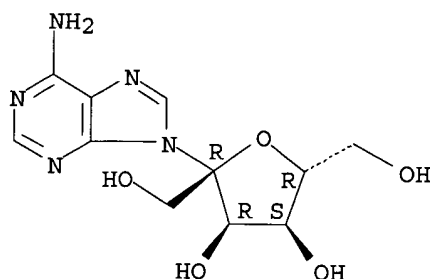
DN 61:63475

OREF 61:11050h,11051a-b

09567863

TI Inhibition of ribosephosphate pyrophosphokinase activity by decoyinine, an adenine nucleoside
AU Bloch, Alexander; Nichol, Charles A.
CS Roswell Park Mem. Inst., Buffalo, NY
SO Biochem. Biophys. Res. Commun. (1964), 16(5), 400-3
DT Journal
LA Unavailable
AB The antibiotics decoyinine [9-.beta.-D-(5,6-psicofuranoseenyl)-6-aminopurine] and psicofuranine (9-.beta.-psicofuranosyl-6-aminopurine) inhibited by 50% the growth of *Streptococcus faecalis* grown in a medium lacking purines and pyrimidines at concns. of 5 .times. 10⁻⁶ and 6 .times. 10⁻⁷ M, resp. This inhibition could not be prevented by glucose, amino acids, or vitamins. Decoyinine and psicofuranine were not subject to deamination by adenosine deaminase or to phosphorolysis by adenosine phosphorylase. Both antibiotics inhibited the conversion of xanthosine phosphate to guanosine phosphate in cell-free exts. of *S. faecalis*. When such an ext. was incubated with ribose 5-phosphate, adenosine tri-phosphate (ATP), and radioactive guanine (or adenine), the corresponding ribonucleotides were formed. Decoyinine inhibited their formation. However, when 5-phosphoribosyl 1-pyrophosphate was added to the ext. contg. the radioactive base, the nucleoside monophosphate was formed readily both in the presence and absence of decoyinine. Nucleoside kinase activity was not detectable and there was no chromatographic evidence for the conversion of decoyinine to its nucleotides. Therefore, it is unlikely that the conversion of the labeled bases to the nucleotides proceeded via the nucleoside phosphorylase and kinase pathway. Guanine or its nucleosides prevented the inhibitory effect of decoyinine and psicofuranine on the growth of *S. faecalis* in a medium free of exogenous pyrimidines. Thus, the biosynthesis of orotidylate is not crit. limited by these antibiotics. Decoyinine and psicofuranine may act by occupying the ATP site in some reactions involving pyrophosphate cleavage from ATP.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(ribosephosphate pyrophosphokinase inhibition by)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 156 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1964:456100 CAPLUS
DN 61:56100
OREF 61:9764g-h
TI Improved assay for psicofuranine
AU Hanka, L. S.; Burch, M. R.
CS Upjohn Co., Kalamazoo, MI
SO Antibiot. Chemotherapy (1960), 10(8), 484-7
From: Anal. Abstr. 8(5), Abstr. No. 2128(1961).
DT Journal
LA Unavailable

09567863

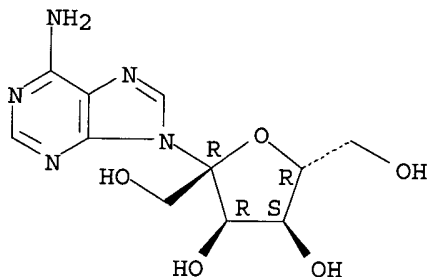
AB Unsatisfactory results by the diskplate microbiol. assay described previously (CA 53, 22215d) are attributed to the presence of an inhibitory substance in the liver ext. included in the medium. The synthetic medium recommended gives satisfactory responses with *Staphylococcus aureus* FDA-209P at 10-80 .gamma. psicofuranine/ml.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(detn. of, synthetic medium for)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 157 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1964:426553 CAPLUS

DN 61:26553

OREF 61:4645e-f

TI Desensitization of guanosine-5'-phosphate synthetase to inhibition by an antibiotic

AU Kuramitsu, Howard; Moyed, H. S.

CS Univ. of Southern California, Los Angeles

SO Biochim. Biophys. Acta (1964), 85(3), 504-6

DT Journal

LA English

AB Psicofuranine (I) (9-D-psicofuranosyl-6-aminopurine) acts by inhibiting guanosine monophosphate synthetase (xanthosine-5'-phosphate:ammonia ligase). The interaction of the enzyme from *Escherichia coli* with I is noncompetitive and readily reversible (suggesting a reaction at other than the active site). A parental synthetase and a mutant synthetase were rendered less sensitive to 2 .times. 10-5M I by 2M urea, 10mM mercaptoethanol, and 40 vol. % ethylene glycol. Desensitization and enzyme inactivation by the reagents were reversible by diln. The parental synthetase was less readily desensitized than the mutant enzyme. The reagents likely modify the enzymes. The I site is likely distinct from the substrate sites.

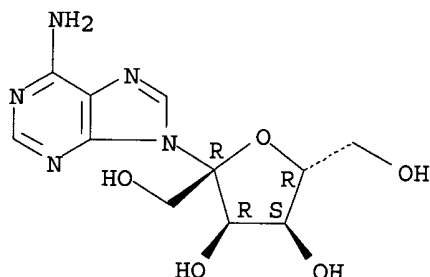
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(guanylic synthetase inhibition by, effect of ethylene glycol, mercaptoethanol and urea on)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

09567863



L3 ANSWER 158 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1964:91224 CAPLUS

DN 60:91224

OREF 60:15976f-g

TI 9-D-Psicofuranosylpurine derivatives

IN Bannister, Brian

PA Upjohn Co.

SO 4 pp.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	US 3126372	19640324	US	19590126
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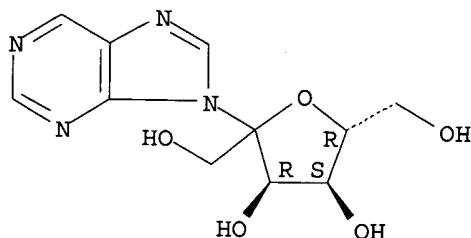
AB 6-Tritylamino-9-D-psicofuranosylpurine 1',6'-ditrityl ether (I) was prepd. from a soln. of 3.81 g. 6-amino-9-D-psicofuranosylpurine in 180 ml. of anhyd. pyridine by treating with 13.8 g. Ph3CBr. The soln. was heated and kept at room temp.; the soln. was treated with 25 ml. of ice H2O. After standing at room temp. for 1 hr. the solvents were evapd. at 20.degree./<1 mm. The residue was dissolved in CHCl3 and washed 3 times with H2O before being dried over anhyd. Na2SO4. The soln. was filtered and the filtrate evapd. to dryness at 30.degree./15 mm. The oily residue was dissolved in 90-ml. C6H6 and the soln. was cooled. The cryst. material was sepd., washed with C6H6, and dried to give 0.896 g. material, m. 242-4.degree.. The filtrate was evapd. to dryness at 30.degree./15 mm. The oily residue (16.0 g.) was dissolved in C6H6 and chromatographed on Mg silicate to give I, m. 250-50.5.degree. (C6H6).

IT 99035-92-4, 9H-Purine, 9-D-psicofuranosyl-
(derivs.)

RN 99035-92-4 CAPLUS

CN 9H-Purine, 9-D-psicofuranosyl- (7CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 159 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1964:91223 CAPLUS

DN 60:91223

OREF 60:15976c-f

09567863

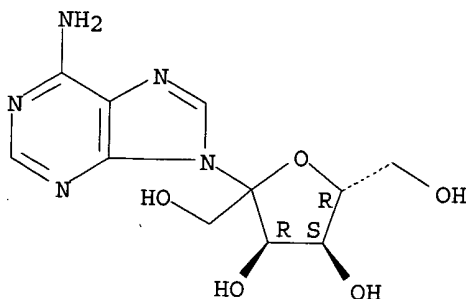
TI 6-Amino-9-D-psicofuranosylpurine derivatives
 IN Schroeder, William; Lewis, Charles; Hoeksema, Herman; Eble, Thomas E.;
 Bannister, Brian
 PA Upjohn Co.
 SO 5 pp.
 DT Patent
 LA Unavailable

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3125567		19640317	US	19590126
GI	For diagram(s), see printed CA Issue.				
AB	<p>6-Amino-9-D-psicofuranosylpurine (I) 3'- and 4'-acylates and 3',4'-diacylates were prepd. Thus, 6-tritylamino-9-D-psicofuranosylpurine 1',6'-ditrityl ether (II) was prepd. by treating a soln. of 3.81 g. I in 180 ml. anhyd. pyridine with 13.8 g. Ph3CBr. After heating on a steam bath for 3 hrs. and standing overnight, the soln. was treated with 25 ml. of ice H2O and the mixt. allowed to stand for 1 hr. before removing the solvents at 20.degree. <1 mm. The residue was dissolved in CHCl3 and washed 3 times with H2O before being dried over anhyd. Na2SO4. The dried soln. was filtered and the filtrate evapd. to dryness at 30.degree./15 mm. The oily residue (16.9 g.) was dissolved by warming in 90 ml. C6H6 and the soln. cooled. The cryst. material which sepd. was filtered, washed in C6H6 and dried to give II, m. 242.degree.. The filtrate was evapd. at 30.degree./15 mm. and the residue chromatographed on Mg silicate to give II, m. 250-50.5.degree.. II was kept with Ac2O-pyridine 5 days at 18-20.degree. to give II 3',4'-diacetate, which was hydrogenolyzed with Pd-C to I 3',4'-diacetate. In similar manner were prepd. 6-amino-9-D-psicofuranosylpurine 3'-benzoate and 6-amino-9-D-psicofuranosylpurine 4'-benzoate; 6-amino-9-D-psicofuranosylpurine 3'-benzoate 4'-acetate, and 1-benzol-6-benzoylimino-1,6-dihydro-9-D-psicofuranosylpurine 1',3',4',6'-tetrabenzoate, m. 157-9.degree..</p>				
IT	<p>13019-86-8, Adenine, 9-D-psicofuranosyl- 99035-92-4, 9H-Purine, 9-D-psicofuranosyl- (derivs.)</p>				

RN 13019-86-8 CAPLUS

CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

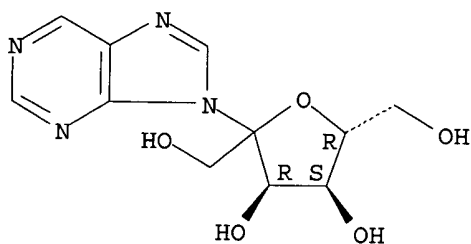


RN 99035-92-4 CAPLUS

CN 9H-Purine, 9-D-psicofuranosyl- (7CI) (CA INDEX NAME)

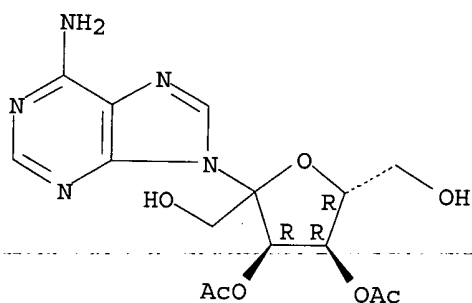
Absolute stereochemistry.

09567863



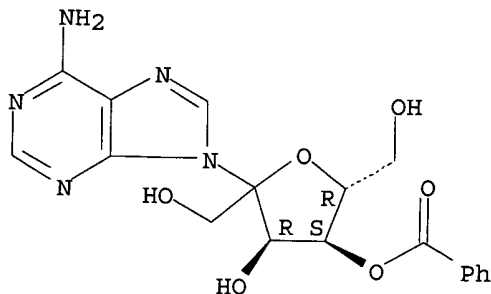
IT 98075-47-9, Adenine, 9-D-psicofuranosyl-, 3',4'-diacetate
98346-17-9, Adenine, 9-D-psicofuranosyl-, 4'-benzoate
98346-18-0, Adenine, 9-D-psicofuranosyl-, 3'-benzoate
100301-47-1, Adenine, 9-D-psicofuranosyl-, 4'-acetate 3'-benzoate
101632-64-8, Adenine, 9-(1,6-di-O-trityl-D-psicofuranosyl)-N-trityl-, 3',4'-diacetate 104218-40-8, Benzamide,
N-(1-benzoyl-9-D-psicofuranosyl-9H-purin-6(1H)-ylidene)-, 1',3',4',6'-tetrabenzoate
(prepn. of)
RN 98075-47-9 CAPLUS
CN Adenine, 9-D-psicofuranosyl-, 3',4'-diacetate (7CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 98346-17-9 CAPLUS
CN Adenine, 9-D-psicofuranosyl-, 4'-benzoate (7CI) (CA INDEX NAME)

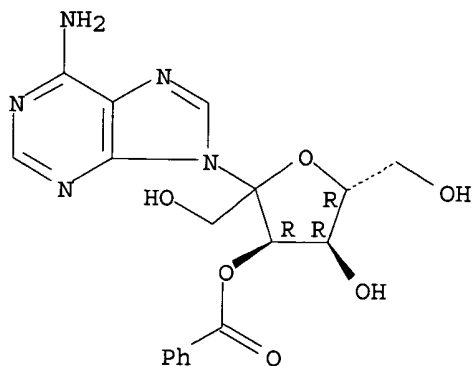
Absolute stereochemistry.



RN 98346-18-0 CAPLUS
CN Adenine, 9-D-psicofuranosyl-, 3'-benzoate (7CI) (CA INDEX NAME)

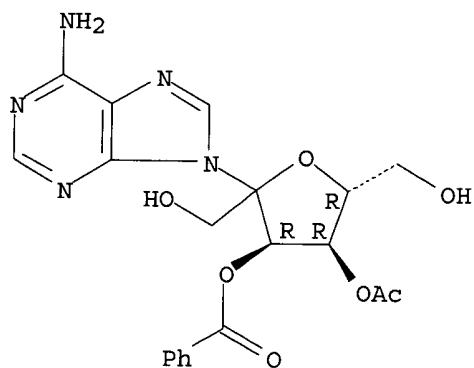
Absolute stereochemistry.

09567863



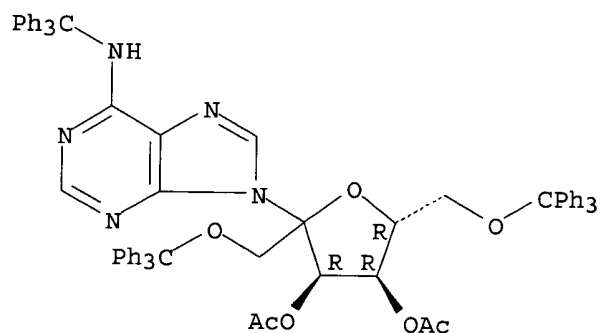
RN 100301-47-1 CAPLUS
CN Adenine, 9-D-psicofuranosyl-, 4'-acetate 3'-benzoate (7CI) (CA INDEX NAME)

Absolute stereochemistry.



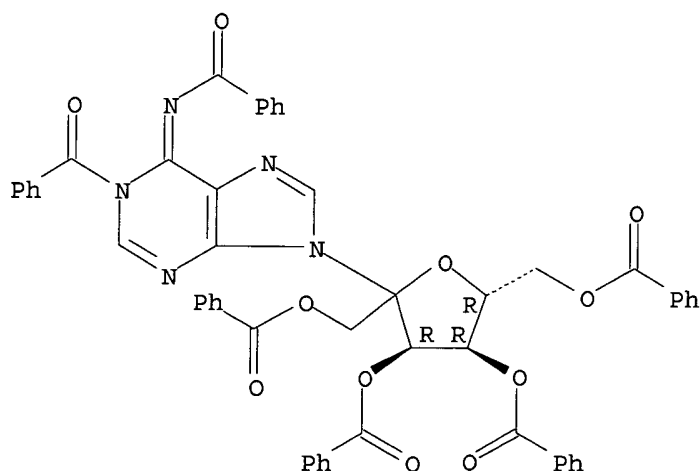
RN 101632-64-8 CAPLUS
CN Adenine, 9-(1,6-di-O-trityl-D-psicofuranosyl)-N-trityl-, 3',4'-diacetate (7CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 104218-40-8 CAPLUS
CN Adenine, N,1-dibenzoyl-9-D-psicofuranosyl-, 1',3',4',6'-tetrabenzoate (7CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



L3 ANSWER 160 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1964:91222 CAPLUS

DN 60:91222

OREF 60:15976a-c

TI N3-Glycosyluracils

IN Naito, Takeo; Sano, Mitsushi

PA Daiichi Seiyaku Co., Ltd.

SO 3 pp.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 39002878	19640319	JP	19610119
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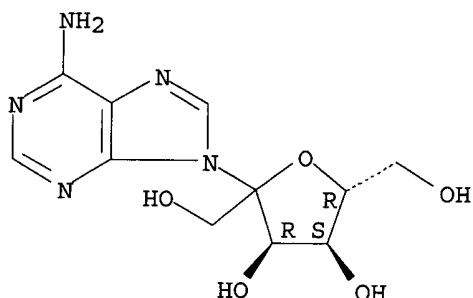
AB D-Glucopyranosylurea (10 parts) is kept with 50 parts Ac₂O and 100 parts pyridine at room temp. for 4 days to give 13 parts tetra-O-acetyl-D-glucopyranosylurea (I), m. 95.degree. (EtOH). Similarly is prepd. tetra-O-acetyl-D-glucopyranosylthiourea, needles, m. 171-3.degree. (AcOEt). Well-pulverized I (5.0 parts) is kept in a desiccator with 3.2 parts Et .beta., .beta.-diethoxypropionate, 4 parts EtOH, and 4 drops concd. H₂SO₄ for 1 week, the resulting mass pulverized, heated with 4 parts NaOH and 100 parts H₂O on a steam bath for 10 min., treated with Amberlite IR-120, and chromatographed on cellulose powder to give 0.6 part 3-D-glucopyranosyluracil, needles, m. 243-4.degree. (decompn.) (dil. EtOH). Similarly prepd. are 3-(D-glucopyranosyl)-2-thiouracil, columns, m. 213-14.degree. (decompn.) (dil. EtOH), 3(D-glucopyranosyl)-2-thiothymine, columns, m. 222.degree. (decompn.) (EtOH), and 3-(D-ribofuranosyl)-2-thiouracil, columns, m. 187.degree. (decompn.) (dil. EtOH). The products are useful as intermediates for the manuf. of anticancer drugs. Cf. preceding abstr.

IT 13019-86-8, Adenine, 9-D-psicofuranosyl- (derivs.)

RN 13019-86-8 CAPLUS

CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 161 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1964:17187 CAPLUS

DN 60:17187

OREF 60:3083d-h,3084a-b

TI Purine ketosides

PA Upjohn Co.

SO 15 pp.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	GB 938805		19631009	GB
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PRAI	US		19590126	
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GI For diagram(s), see printed CA Issue.

AB Purine ketosides (I and II) possess valuable therapeutic activity as antibacterial and antitumor agents. 6-Hydroxy-9-D-psicofuranosylpurine (II, R' = H, XR = OH) exhibits activity in vivo against Streptococcus pyogenes and 6-mercapto-9-D-psicofuranosylpurine (II, R' = H; XR = SH) is active in vivo against sarcoma 180. The starting compd. in the above prepn. is 6-amino-9-D-psicofuranosylpurine (III) (Eble, et al., CA 53, 22215d). II (R' = H, XR = OH) was prepd. by treating III with HNO₂ and allowing the diazo compd. to decomp. without isolation. The corresponding acyl compds. were prepd. by acylation of II (R' = H, XR = OH) with Ac₂O or acyl halide in the presence of a base like pyridine or quinoline. The corresponding thio compds. (II, R' = H, XR = SH) were prepd. by treating II (R' = H, XR = OH) with P₂S₅ in the presence of a tertiary base. II (R' = H, XR = SH) were treated with an amine HNR₂R₃ (R₂ = R₃ = alkyl, aryl, or aralkyl groups) to give II (R' = H, XR = NR₂R₃) according to the method of Albert and Brown (CA 50, 15539c). Reaction of I or II (R' = H) with 2 molar proportions of trityl chloride or bromide in the presence of a tertiary amine yielded the corresponding 1',6'-ditrityl ethers. The trityl ether was acylated to the corresponding 3'- and 4'-monoacylates, and 3',4'-diacylates. I or II (R' = acyl) were also prepd. by treating a halomercuri deriv. of purine (IV) with a D-psicofuranosyl halide tetraacetate at 50-150.degree. in an inert solvent. I were prepd. from the corresponding thio compds. by treatment with Raney Ni. To a mixt. of 20 g. III and 84 g. barium nitrite in 2000 ml. H₂O, maintained at 25.degree., was added 40 ml. HOAc, the mixt. left at 25.degree. for 24 hrs., and then treated with 52 g. anhyd. Na₂SO₄. The mixt. was filtered, the filtrate adjusted to pH 7, stirred with 100 g. activated C for 2 hrs., and the C filtered off. The C was extd. with hot 90% acetone for 10 min., filtered, and the filtrate concd. to 125 ml. to yield 6-hydroxy-9-D-psicofuranosylpurine (II, R' = H, XR = OH), m. 162.degree. (H₂O). Crude II (R' = H, XR = OH), obtained from 5 g. III, after drying, was dissolved in 200 ml. anhyd. pyridine and acetylated with Ac₂O to yield II (R' = Ac, XR = OH), m. 216-17.degree.. II (9 g.) (R' = Ac, XR = OH), 14.03 g. P₂S₅, 250 ml. anhyd. pyridine, and 2.5 ml. H₂O was refluxed for 4 hrs. to give 5.4 g. 6-mercapto-9-D-psicopyranosylpurine tetraacetate (II, R' = Ac, XR =

SH), m. 227-30.degree. (MeCOEt-abs. EtOH-Et2O). Similarly, 6-mercapto-9-D-psicofuranosylpurine tetrabenzoate was prepd. from II (R' = Bz, XR = OH). A soln. of 3 g. II (R' = Ac, XR = OH) in 250 ml. MeOH previously satd. with NH3 at 0.degree. was maintained at 4.degree. for 16 hrs., and then evapd. to dryness in vacuo. The residue crystd. from 16 ml. H2O to yield 6-mercapto-9-D-psicofuranosylpurine (II, R' = H, XR = SH), m. 155-8.degree.; methylation with MeI-NaOH gave II (R' = H, XR = SMe), m. 98-102.degree. (H2O). A mixt. of 3.28 g. II (R' = H, XR = SMe) and 100 ml. anhyd. pyridine treated with Ac2O gave 6-methylthio-9-D-psicofuranosylpurine tetraacetate (II, R' = Ac, XR = SMe). A soln. of 3.2 g. II (R' = H, XR = SMe) in 100 ml. MeOH was stirred, and refluxed with 10 g. Raney Ni for 1 hr. to yield cryst. monohydrate of I (R' = H), m. 96-100.degree.. The corresponding tetraacetate was prepd. A soln. of 1.1 g. II (R' = H, XR = SMe) in 10 ml. MeOH contg. 1 g. NHMe2 was heated at 150.degree. for 1 hr. in a sealed tube to yield monohydrate of 6-dimethylamino-9-D-psicofuranosylpurine (II, R' = H, XR = NMe2), m. 159-61.degree.. Similarly was prepd. 6-diethylamino-9-D-psicofuranosylpurine, 6-isopropylamino-9-D-psicofuranosylpurine, 6-diisobutylamino-9D-psicofuranosylpurine, 6-benzylamino-9-D-psicofuranosylpurine, and 6-anilino-9-D-psicofuranosylpurine.

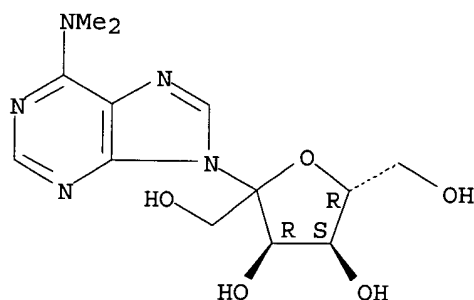
IT

96079-17-3, Adenine, N,N-dimethyl-9-D-psicofuranosyl-
 99035-92-4, 9H-Purine, 9-D-psicofuranosyl- 99035-98-0,
 9H-Purine-6-thiol, 9-D-psicofuranosyl- 99828-28-1, Hypoxanthine,
 9-D-psicofuranosyl- 106360-24-1, Hypoxanthine,
 9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate 106740-73-2,
 9H-Purine-6-thiol, 9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate 1067
 43-43-5, 9H-Purine-6-thiol, 9-D-psicofuranosyl-, 1',3',4',6'-
 tetrabenzoate 107628-81-9, 9H-Purine, 6-(methylthio)-9-D-
 psicofuranosyl-, tetraacetate 107781-63-5, Hypoxanthine,
 9-D-psicofuranosyl-, 1',3',4',6'-tetrabenzoate
 (prepn. of)

RN 96079-17-3 CAPLUS

CN Adenine, N,N-dimethyl-9-D-psicofuranosyl- (7CI) (CA INDEX NAME)

Absolute stereochemistry.

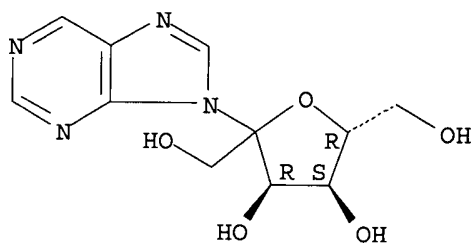


RN 99035-92-4 CAPLUS

CN 9H-Purine, 9-D-psicofuranosyl- (7CI) (CA INDEX NAME)

Absolute stereochemistry.

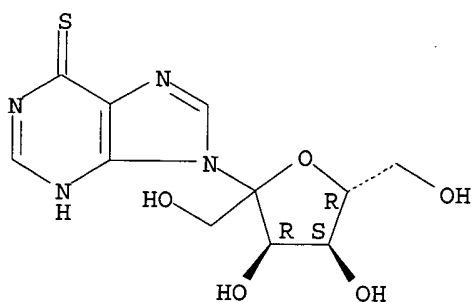
09567863



RN 99035-98-0 CAPLUS

CN 9H-Purine-6-thiol, 9-D-psicofuranosyl- (7CI) (CA INDEX NAME)

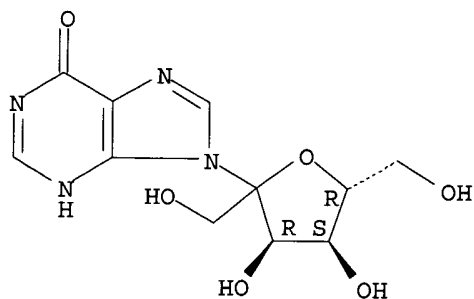
Absolute stereochemistry.



RN 99828-28-1 CAPLUS

CN Hypoxanthine, 9-D-psicofuranosyl- (7CI) (CA INDEX NAME)

Absolute stereochemistry.

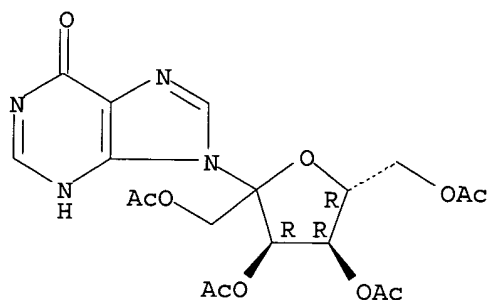


RN 106360-24-1 CAPLUS

CN Hypoxanthine, 9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate (7CI) (CA INDEX NAME)

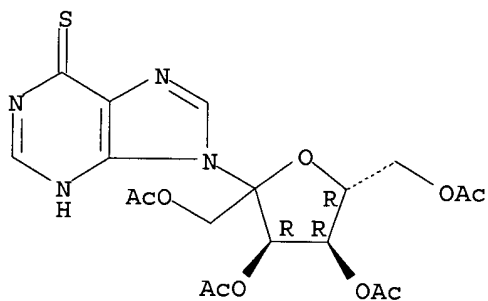
Absolute stereochemistry.

09567863



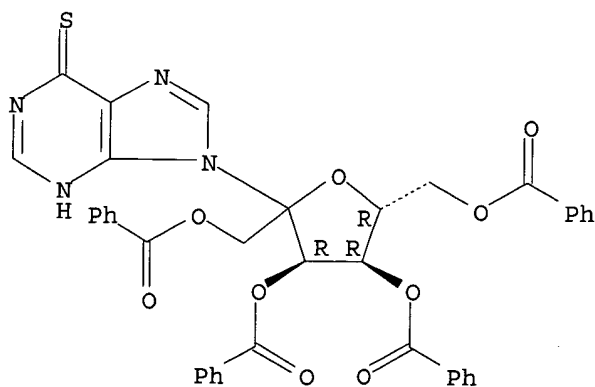
RN 106740-73-2 CAPLUS
CN 9H-Purine-6-thiol, 9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate (7CI)
(CA INDEX NAME)

Absolute stereochemistry.



RN 106743-43-5 CAPLUS
CN 9H-Purine-6-thiol, 9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate (7CI)
(CA INDEX NAME)

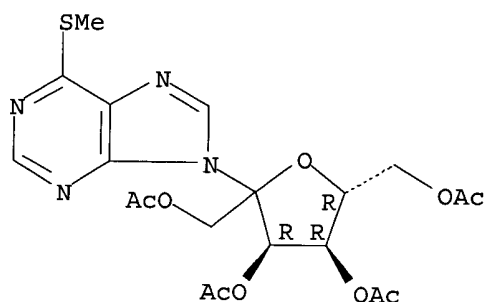
Absolute stereochemistry.



RN 107628-81-9 CAPLUS
CN 9H-Purine, 6-(methylthio)-9-D-psicofuranosyl-, tetraacetate (7CI) (CA
INDEX NAME)

Absolute stereochemistry.

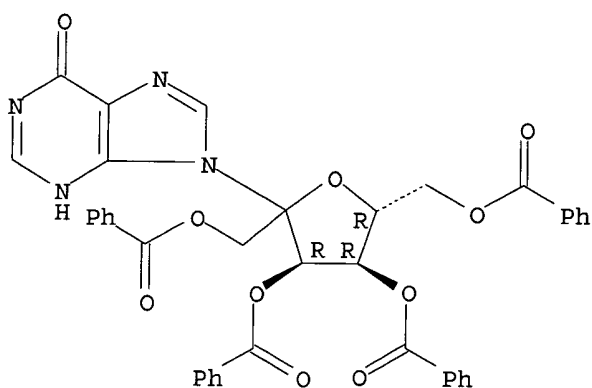
09567863



RN 107781-63-5 CAPLUS

CN Hypoxanthine, 9-D-psicofuranosyl-, 1',3',4',6'-tetrabenzoate (7CI) (CA INDEX NAME)

Absolute stereochemistry.

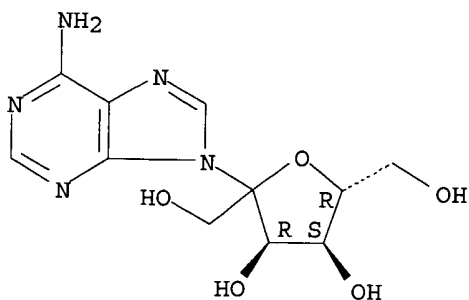


IT 13019-86-8, Adenine, 9-D-psicofuranosyl-
(reaction with HNO₂)

RN 13019-86-8 CAPLUS

CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 162 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1963:471223 CAPLUS

DN 59:71223

OREF 59:13233e

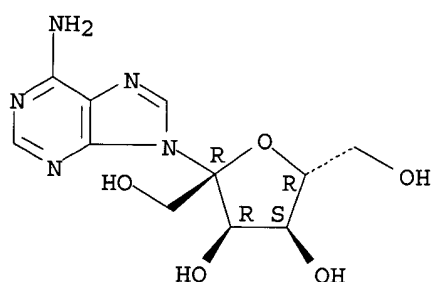
TI Effect of structure on nucleoside-antagonist activity

AU Suhadolnik, R. J.; Weinbaum, George

09567863

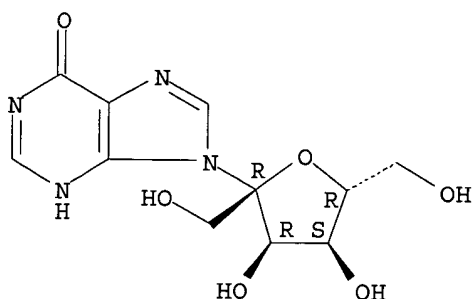
CS Albert Einstein Med. Center, Philadelphia, PA
SO Biochem. Biophys. Res. Commun. (1963), 12(2), 83-6
DT Journal
LA Unavailable
AB Combination of normal metabolic intermediates (inosine, hypoxanthine, or xanthosine) with psicofuranine enhances the bacteriostatic effect of the antagonist. This synergism may be due to the inhibition of more than one enzyme.
IT **1874-54-0**, Adenine, 9-.beta.-D-psicofuranosyl-
(bactericidal action of, effect of hypoxanthine, inosine and xanthosine on)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **99146-72-2**, Hypoxanthine, 9-.beta.-D-psicofuranosyl-
(bactericidal activity of)
RN 99146-72-2 CAPLUS
CN Hypoxanthine, 9-.beta.-D-psicofuranosyl- (7CI) (CA INDEX NAME)

Absolute stereochemistry.



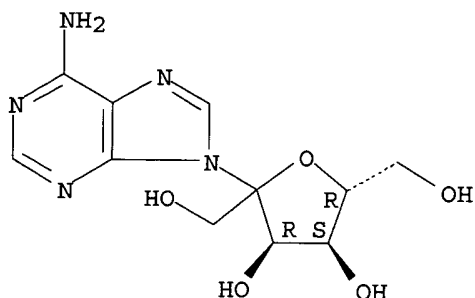
L3 ANSWER 163 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1963:462806 CAPLUS
DN 59:62806
OREF 59:11647g-h,11648a-d
TI Acylated psicofuranosyladenines
IN Schroeder, William; Lewis, Charles; Hoeksema, Herman; Eble, Thomas E.;
Bannister, Brian
PA Upjohn Co.
SO 4 pp.; Continuation-in-part of U.S. 3,020,274 (CA 56, 15970g)
DT Patent
LA Unavailable
PATENT NO. KIND DATE APPLICATION NO. DATE

PI US 3079378 19630226 US 19600201
 AB Addn. to 1.0 g. 9-D-psicofuranosyladenine (I) in 125 ml. pyridine of 50 ml. Ac2O at 15-18.degree., keeping the mixt. 5 days, stirring 3 hrs. with 20 g. of ice, evapg. to dryness in vacuo, dissolving the residue in CHCl3, washing with 3N H2SO4, and evapg. again to dryness yielded a residue which was sepd. by countercurrent distribution (660 transfers in the system (II) H2O: 95% EtOH: EtOAc: cyclohexane 2:3:2.75:2.25 by vol.) into 600 mg. (c 0.40, same solvents) I hexaacetate, oil. and 200 mg. (c 0.17) I pentaacetate (III), oil. I (2.97 g.) in 40 ml. pyridine treated dropwise with 10 g. BzCl and stirred 45 min. yielded, after 10 min. on a steam bath with addn. of a little H2O and pouring into 300 ml. H2O, an oil. This was washed with hot water and dissolved in 175 ml. hot EtOH to give, after standing 3 hrs., I hexabenzoyl, m. 157-9.degree. (95% EtOH). The following hexa-O-acyl I were prepd. similarly: R(RCO) = Et, iso-Pr, Bu, iso-Bu, Me3CCH2, C6H13, C7H15, PhCH2, MeC6H4, cyclopentylethyl, cyclo-1-pentenylethyl, cyclohexylmethyl, vinyl, MeCH:CH, PrC.tplbond.C, C5H11C.tplbond.C, ClCH2, p-ClC6H4, o-MeOC6H4, o-HOC6H4, p-O2NC6H4, NCCH2. After standing 2 hrs. at 2.degree. and 20 hrs. at room temp., 3 g. D-psicose in 15 ml. Ac2O was poured into ice-water and extd. with CHCl3. After washing with 3 150-ml. portions of N HCl, satd. aq. NaHCO3, and water, drying over MgSO4, and evapg. to dryness in vacuo at 40.degree., the ext. yielded 5.8 g. D-psicose pentaacetate (IV), oil, [.alpha.]24D 7.5.degree. (c 2.2, EtOH). IV (3 g.) in 115 ml. abs. ether satd. at 0.degree. with dry HCl, the ether and HCl removed at 20.degree. in vacuo after standing 42 hrs. at 2.degree., and the soln. washed several times with CCl4 and C6H6 yielded by vacuum distn. tetra-O-acetyl-D-psicofuranosyl chloride (V), oil. V in xylene refluxed 3 hrs. with stirring with 4 g. chloromercuriacetyladenine (VI) in 100 ml. xylene yielded, after hot filtration, vacuum evapn., and countercurrent extn. (600 transfers) in II, III (c 0.17, in II), oil. Replacing VI by chloromercuribenzoyladenine gave 9-(tetra-O-acetyl-D-psicofuranosyl)-6-benzamidopurine; replacing V by tetra-O-benzoyl-D-psicofuranosyl chloride gave 9-(tetra-O-benzoyl-D-psicofuranosyl)-6-acetamidopurine. After standing 18 hrs. at 0.degree., III in 100 ml. MeOH satd. with NH3 was filtered off, the filtrate evapd. to dryness in vacuo at 30.degree., and the brown residue extd. in a Craig machine with BuOH-H2O (985 transfers); the tubes contg. the peak at c 0.3 were combined and evapd. to dryness in vacuo, to yield, from 50% aq. Me2CO, I, m. 190-5.degree. (50% aq. Me2CO), [.alpha.]23D --55.degree. (c 0.5, Me2SO). Ac2O (32 ml.) in 30 ml. pyridine added to 20 g. I in 140 ml. pyridine at 0-10.degree. the mixt. kept at room temp. 16 hrs. and distd. to dryness at <1 mm., yielded on trituration with EtOH 24.5 g. I tetraacetate, m. 83-6.degree. (EtOH), [.alpha.]D --28.degree. (c 1.0, EtOH). The acyl derivs. of I show antibacterial activity; the penta-O-acyl derivs. are intermediates in the synthesis of I.

IT 13019-86-8, Adenine, 9-D-psicofuranosyl-
 (pentaacetyl deriv.)
 RN 13019-86-8 CAPLUS
 CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

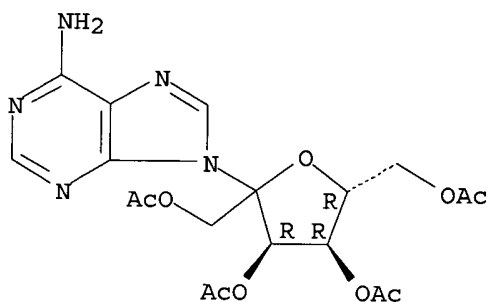
Absolute stereochemistry.

09567863



IT 100428-81-7, Adenine, 9-D-psicofuranosyl-, 1',3',4',6'-
tetraacetate
(prepn. of)
RN 100428-81-7 CAPLUS
CN Adenine, 9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate (7CI) (CA INDEX
NAME)

Absolute stereochemistry.



L3 ANSWER 164 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1963:435867 CAPLUS
DN 59:35867
OREF 59:6499h,6500a-e
TI Nucleic acid components and their analogs. XXX. The synthesis of
psicofuranine
AU Farkas, J.; Sorm, F.
CS Ceskoslov. Akad. Ved, Prague
SO Collection Czech. Chem. Commun. (1963), 28, 882-6
DT Journal
LA Unavailable
AB cf. Beranek J., Sorm F., *ibid.* 28,469. D-Psicose (I), obtained by
decompn. of 3,4,5,6-tetra-O-acetyl-1-diazo-1-deoxy-D-psicose (II) followed
by hydrolysis, was transformed to a mixt. of D-psicose methyl
glycosides(III) and further to methyl D-psicofuranoside tetrabenzoate
(IV), whose reaction with the chloromeric salt (V) of 6-benzamidopurine
afforded 9-.beta.-D-psicofuranosyl adenine (psicofuranine) (VI). Adding
20 g. II portionwise over a period of 1 hr. to 200 mg. Cu powder in 200
ml. AcOH at 55-60.degree., distg. the AcOH at 45.degree./15 mm., treating
the residue with 200 g. ice, extg. with CHCl₃, drying, evapg. the soln.,
dilig. the residue with Et₂O, keeping it 24 hrs. at -20.degree., dissolving
the cryst. product (13.75 g.) in 10 ml dry MeOH, dilg. the soln. with 25
ml. Et₂O, filtering, and treating the filtrate with 15 ml. petr. ether (b.
50-60.degree.) gave, after cooling at 0.degree. overnight, 12.8 g.
1,3,4,5,6-penta-O-acetyl-D-psicose (VII), m. 63.degree. (aq. MeOH). VII
was also obtained by acid-catalyzed decompn. of 10 g. II by adding it to a

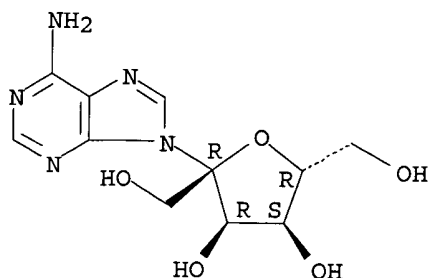
stirred, ice-cold soln. of 50 ml. AcOH, 20 ml. Ac₂O, and 0.2 ml. 70% HClO₄, dilg. the mixt. with 250 ml. ice-cold H₂O, and extg. with CHCl₃ (yield 4 g.). Adding a soln. of NaOMe, prepd. from 1 g. Na and 20 ml. MeOH to a cold (0.degree.) soln. of 5 g. VII in 200 ml. MeOH, keeping the mixt. 2 hrs. at 0.degree., adding 200 ice, neutralizing the mixt. with Dowex 50 (H+), and evapg. at 35.degree./15 mm. and finally at 0.5 mm. at room temp. afforded 3.5 g. sirupy I. Keeping a soln. of 2.4 g. I in 100 ml. 0.2N HCl in MeOH 20 min. at room temp., adding Ag₂CO₃, filtering the ppt., and evapg. the filtrate in vacua gave 2.3 g. III; 500 mg. of this mixt. gave on chromatography on Whatman No. 3 paper (40:11:19 BuOH-EtOH-H₂O) 160 mg. a compd. (VIII), [α .]20D -40.2.degree. (MeOH), Rf 0.37, and 100 mg. a compd. (IX), [α .]20D 42.8.degree. (MeOH), Rf 0.45. By a somewhat modified procedure, I afforded still one more methyl glycoside (X), m. 82-3.degree. (AcOEt), [α .]20D -125.3.degree. (MeOH), Rf 0.51. A mixt. of VIII and IX (2.2 g.) dissolved in dry C₅H₅N, treated with 7.2 ml. BzCl 20 min. at room temp., heated 6 hrs. at 50.degree., the mixt. dild. with 100 ml. ice-cold H₂O, and extd. with Et₂O gave, after evapn. in vacuo, 7.5 g. of a sirup, chromatographed on Al₂O₃ contg. 10% H₂O to give IV (mixt. of anomers). Dissolving 5 g. IV in 35 ml. CH₂Cl₂, cooling the soln. to 0.degree., adding 20% HBr in 35 ml. AcOH, keeping at 0.degree. for 20 min., dilg. the mixt. with 30 ml. CH₂Cl₂, pouring on ice, sepg. the org. layer, and concg. in vacua gave sirupy psicofuranosyl bromide. This was treated with 3.5 g. V in 20 ml. AcNET₂ (after azeotropic drying by distn. with C₆H₆), the mixt. kept 5 days at 20.degree., dild. with 100 ml. C₆H₆, washed with 10% soln. of NaI and H₂O, the C₆H₆ removed, the residue dissolved in 50 ml. abs. MeOH, the soln. treated with 1 ml. 1.5N Ba(OMe)₂, after 1 hr. with another 0.5 ml. of the same soln., neutralized with CO₂, treated with NH₃ in MeOH and with 20 ml. H₂O, heated 5 min. at 40.degree., the pptd. BaCO₃ filtered off, the soln. evapd. in vacuo, the residue dissolved in 25 ml. H₂O, pH adjusted to 6.5 with HCO₂H, the soln. passed through a Dowex 50 (NH₄) column, and eluted with 500 ml. H₂O and 100 ml. 0.05N NH₄OH gave a mixt. of adenine (XI) and VI. Purification of the mixt. by evapn. (XI crystd. and was filtered off) followed by paper chromatography on Whatman No. 3 paper gave 50.7 mg. (4.6%) VI, m. 211-12.degree. (H₂O), [α .]20D -65.7.degree. (HCONMe₂), λ . 261 m. μ . (log .member. 4.126).

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(prepn. of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 165 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1963:424497 CAPLUS

DN 59:24497

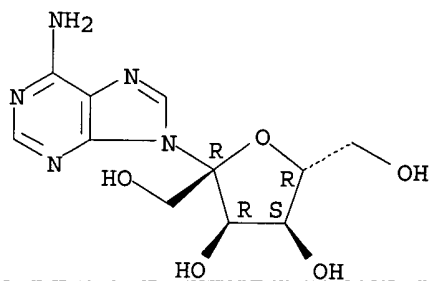
OREF 59:4456f-h

TI Polyserositis induced by psicofuranine in man and comparative toxicity in the rat, mouse, dog, chicken, and monkey

09567863

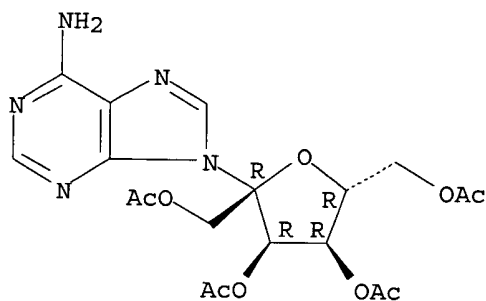
AU Talley, Robert W.; Carlson, Robert G.
CS Henry Ford Hosp., Detroit, MI
SO Toxicol. Appt. Pharmacol. (1963), 5, 235-46
DT Journal
LA Unavailable
AB Psicofuranine (I) or its acetate (II) given intravenously or orally to terminal cancer patients produced pericarditis and (or) pleuritis, and (or) peritonitis in these subjects. The acute L.D.50 of II given intraperitoneally to mice was 2560 mg./kg., and >4000 mg./kg. given orally to the rat. The pericardium, pleura, and peritoneum were unaffected in the monkey and chicken. Given orally 32 days to dogs, II produced a loss in wt., and a definite lesion of pancreatic acinar tissue; rats showed an increase in neutrophils and no leukopenia. Treatment of rats bearing Walker-156 tumor implants with I produced an increase in the severity of the cardiac lesions seen in such rats, but did not produce the fibrinous inflammatory exudation of the serous surfaces as seen in man.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- 79060-74-5
, Adenine, 9-.beta.-D-psicofuranosyl-, 1',3',4',6'-tetraacetate
(toxicity of, species variations in)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 79060-74-5 CAPLUS
CN 9H-Purin-6-amine, 9-(1,3,4,6-tetra-O-acetyl-.beta.-D-psicofuranosyl)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

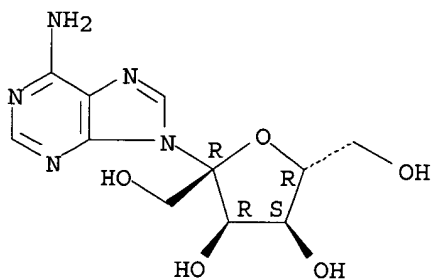


L3 ANSWER 166 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1963:424360 CAPLUS
DN 59:24360
OREF 59:4435e-g
TI Feedback inhibition of purine biosynthesis in ascites tumor cells by purine analogs

09567863

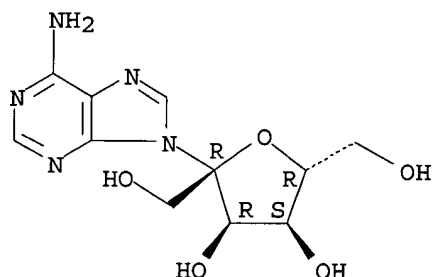
AU Henderson, J. Frank
CS George Washington Univ. School of Med., Washington, DC
SO Biochem. Pharmacol. (1963), 12(6), 551-6
DT Journal
LA Unavailable
AB cf. CA 57, 11730c. The ability of 37 purine analogs to inhibit purine biosynthesis de novo in Ehrlich ascites tumor cells in vitro has been examd. in order to define structural requirements for this reaction. Only 8 analogs were active feedback inhibitors. 6-Methylthiopurine ribonucleoside was more active than adenine, while 6-methylpurine was as active as adenine. 2,6-Diaminopurine, 6-benzylthiopurine, psicofuranine, 2-amino-6-benzylthiopurine, purine, and thioguanine ribonucleoside were approx. as active as the less active natural purines. No compd. tested interfered with feedback inhibition by adenine. Combinations of adenine with purine or 2,6-diaminopurine, or of purine with diaminopurine, inhibited in a potentiative manner. No correlation was observed between feedback inhibitory activity and nucleotide formation by purine analogs.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(purine-formation inhibition by)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 167 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1963:35484 CAPLUS
DN 58:35484
OREF 58:6099b-c
TI Further studies on the activity of hadacidin
AU Shigeura, Harold T.; Gordon, Charles N.
CS Merck Inst., Rahway, NJ
SO Cancer Res. (1962), 22, 1356-61
DT Journal
LA Unavailable
AB The concn. of hadacidin required to inhibit pyrimidine synthesis was much greater than that necessary to inhibit purine formation. The antibiotic did not directly inhibit the incorporation of glycine, L-leucine, and formate into proteins. Hadacidin potentiated the growth-inhibitory activity of 2,6-diaminopurine and acted additively with 5-fluorouracil, aminopterin, amethopterin, psicofuranine, puromycin, and azaserine on the growth of Escherichia coli B. Hadacidin antagonized the growth-inhibitory properties of 6-mercaptapurine and 6-azauracil.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(Escherichia coli response to, hadacidin and)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 168 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1963:20943 CAPLUS

DN 58:20943

OREF 58:3499g-h,3500a

TI Synthesis of psicofuranine

AU Farkas, J.; Sorm, F.

CS Czecho-slovak Acad. Sci., Prague

SO Tetrahedron Letters (1962) 813-14

DT Journal

LA Unavailable

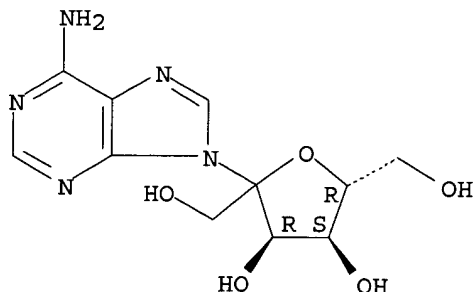
AB Psicofuranine (I) was chosen as a model substance for nucleosidic antimetabolites contg. D-psicose (II) as an anomalous sugar moiety and possessing potential cancerostatic activity. Treatment of II with 0.2N HCl in MeOH at 20.degree. 20 min. and sepn. of the mixt. of anomeric methylpsicofuranosides by preparative paper chromatography (Whatman No. 3 paper, 40:11:19 BUOH-EtOH-H2O) gave anomer I, Rfructose 1.66 (Whatman No. 1 paper, above solvents), $[\alpha]_{20D} -40.2$.degree. (MeOH), HIO4 oxidn. 1.05 moles, and anomer II, Rfructose 1.86, $[\alpha]_{20D} 42.8$.degree. (MeOH), HIO4 oxidn. 0.94 mole. The mixt. benzoyleated and chromatographed on neutral Al2O3 gave a mixt. of 2-O-methyl-1,3,4,6-tetra-O-benzoylpsicofuranoses (III), C35H30O10. III in CH2Cl2 treated 20 min. at 0.degree. with 20% HBr-AcOH and the bromide kept 5 days at 20.degree. with 6-beuzamidopurine chloro-mercuric salt in AcNEt2 gave a crude nucleoside (IV). IV treated with 0.05N (MeO)2Ba, chromatographer on a Dowex-50 (NH4+) column and eluted with 0.01N NH4OH, the eluate paper chromatographed to remove adenine, and purified on an IRC-50 column yielded 4.6% I, C11H15N5O5, m. 211-12.degree., $[\alpha]_{20D} -65.7$.degree. (HCONMe2), HIO4 oxidn. 1.06 moles, $\lambda_{261} m.m\mu$. (log ϵ 4.126) in buffered soln. (pH 8.22).

IT 13019-86-8, Adenine, 9-D-psicofuranosyl-
(prepn. of)

RN 13019-86-8 CAPLUS

CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



09567863

L3 ANSWER 169 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1962:81722 CAPLUS

DN 56:81722

OREF 56:15970g-h

TI 6-Amino-9-D-psicofuranosylpurine

IN Eble, Thomas E.; Lewis, Charles

PA Upjohn Co.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3020274		19620206	US	19580310

PI US 3020274 19620206 US 19580310

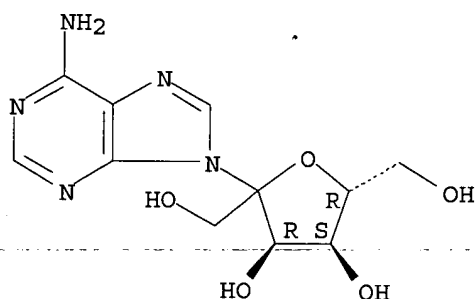
AB Incubation of Streptomyces hygroscopicus var. decoyicus for 5 days at 30.degree. and isolation gave a crude product contg. 40% 6-amino-9-D-psicofuranosylpurine (I). I was further purified by countercurrent distribution. One g. of the crude product yielded 388 mg. pure I, m. 212-14.degree., [.alpha.]25D -46.degree. (HCONMe2).

IT 13019-86-8, Adenine, 9-D-psicofuranosyl- (prepn. of)

RN 13019-86-8 CAPLUS

CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 170 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1962:60827 CAPLUS

DN 56:60827

OREF 56:11694f-h

TI Ketosylpurines

IN Sehroeder, William

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3014900		19611226	US	19590126
DE 1135914			DE	
GB 938804			GB	

PI US 3014900 19611226 US 19590126

DE 1135914

GB 938804

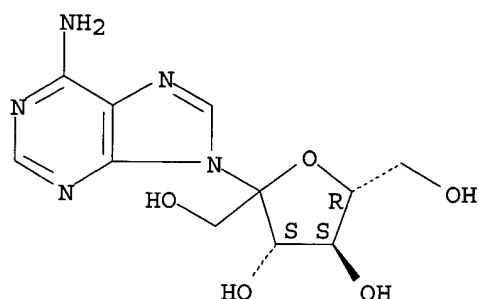
AB Nucleosides were prepd. by the reaction of a halomercuri deriv. of a purine with a poly-O-acetylketosyl halide. D-Psicose was acetylated with Ac2O in pyridine to D-psicose pentaacetate which was converted to tetra-O-acetyl-Dpsicofuranosyl chloride (I) by reaction with HCl in abs. Et2O at 2.degree. 42 hrs. Refluxing I in xylene with chloromercuriacetyl adenine (II) 3 hrs., hot filtration, and evapn. of the filtrate to dryness in vacuo gave 9-(D-psicofuranosyl) adenine pentaacetate (III). III was treated with MeOH satd. with NH3 at 0.degree. 18 hrs., filtered, the filtrate evapd. in vacuo, and the residue purified by countercurrent distribution to give 6-amino-9-(D-psicofuranosyl)purine.

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In a similar manner, except using chloromereuri-6-methylthiopurine in place of II, 6-methylthio-9-(D-psicofuranosyl)purine was obtained. D-Fructofuranose tetrabenzoate was converted by treatment with HCl to D-fructofuranosyl chloride tetrabenzoate, which with II gave 6-acetamido-9-(D-fructofuranosyl)purine tetrabenzoate (IV). Deacylation of IV with methanolic-NH₃ gave 6-amino-9-(D-fructofuranosyl)purine, m. 219.5-20.5.degree., [α .]D₂₈ 92.degree. (HCONMe₂). These compds. showed antibiotic activity.

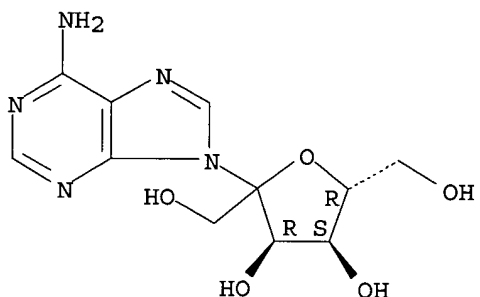
IT 13019-83-5, Adenine, 9-D-fructofuranosyl- 13019-86-8,
Adenine, 9-D-psicofuranosyl-
(prepn. of)
RN 13019-83-5 CAPLUS
CN 9H-Purin-6-amine, 9-D-fructofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 13019-86-8 CAPLUS
CN 9H-Purin-6-amine, 9-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 171 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1962:60741 CAPLUS
DN 56:60741
OREF 56:11647h-i,11648a-i,11649a-e
TI Dehydrogenation of steroids. IV. Dienol-benzene re arrangement
AU Dannenberg, Heinz; Hans-Guenter, Neumann
CS Max-Planck-Inst. Biochem., Munich, Germany
SO Ann (1961), 646, 148-70
DT Journal
LA Unavailable
GI For diagram(s), see printed CA Issue.
AB cf. CA 55, 10504i. The dienol-benzene rearrangement proceeded by 1,4-dien-3-one steroids (I and 1,4,6-trien-3-one steroids (II) after direct or homologous redn. of the oxo group, analogously to the

acid-catalyzed dienone-phenol rearrangement in the presence of $\text{Ac}_2\text{O} \cdot \text{H}_2\text{SO}_4$. Thus, I and II yielded 4-methyl and 1-methyl ring A-benzoid compds. The dienol-benzene and the dienonephenol rearrangements were of the same type. The proof for the 4-position of the Me group in 4-methyl-19-nor-1,3,5(10)-cholestatriene (III), obtained by redn. of 1,4-cholestadien-3-one (IV) with LiAlH_4 and subsequent treatment with acid, was given by the dehydrogenation with Se to 3',8-dimethyl-1,2-cyclopentenophenanthrene (V). IV (5.0 g.) in 100 cc. Et_2O added with stirring during 0.5 hr. to 1.0 g. LiAlH_4 in 100 cc. dry Et_2O , the mixt. dild. with 25 cc. Et_2O , refluxed 0.5 hr., worked up, the resulting 4.9 g. mixt. of oil and crystals dissolved in 125 cc. 96% EtOH , refluxed 0.5 hr. with 5 cc. concd. HCl , poured into 300 cc. H_2O , extd. with Et_2O , and the oily residue from the ext. (4.4 g.) chromatographed on Al_2O_3 gave 3.7 g. III, m. 49.degree.. The crude product from a similar run with 3.5 g. IV dissolved in petr. ether and filtered gave 350 mg. cryst. $\text{C}_{54}\text{H}_{86}\text{O}$ (VI), m. 216-18.degree. (C_6H_6 - Me_2CO). VI (121 mg.), 20 cc. EtOH , and 1 cc. concd. HCl refluxed 0.5 hr. and the product chromatographed on Al_2O_3 yielded 90 mg. III. IV (1 g.) in 20 cc. dry Et_2O added dropwise at room temp. to MeMgI from 200 mg. Mg and 1.1 g. MeI in Et_2O , the mixt. stirred 1 hr., worked up, and 375 mg. of the crude product (1.07 g.) heated 0.5 hr. on the water bath with 0.3N HCl gave 150 mg. oily 1-Me deriv. of III, $[\alpha]_D^{25} 155.5$.degree..

1,4-Androstadiene-3,17-dione (200 mg.) in 15 cc. EtOH added dropwise to 50 g. fructose in 500 cc. H_2O and 25 g. bakers' yeast, the mixt. fermented 3 days at about 20.degree., extd. with Et_2O , and the ext. worked up gave 168 mg. 1,4-androstadien-17.beta.-ol-3-one (VII), m. 168.degree. (aq. MeOH). VII (150 mg.) in 15 cc. dry Et_2O added at room temp. dropwise to 20 equivs. MeMgI in Et_2O , the mixt. poured onto ice and aq. NaHCO_3 , extd. with Et_2O , the residual oil (160 mg.), contg. about 50% 3-methylene-1,4-androstadien-17.beta.-ol, refluxed 0.5 hr. with 20 cc. EtOH and 1 cc. concd. HCl , and the crude product (150 mg.) chromatographed on Al_2O_3 gave 1,4-dimethyl-1,3,5(10)-estratrien-7.beta.-ol- MeOH (VIII. MeOH), m. 74.degree. (MeOH); VIII m. 64.degree., $[\alpha]_D^{25} 153.7$.degree. (EtOH). VIII (58 mg.), 4 cc. $\text{C}_5\text{H}_5\text{N}$, and 2 cc. Ac_2O heated 1 hr. on the water bath gave the oily acetate, $[\alpha]_D^{25} 110$.degree. (EtOH), $\text{Rf} 0.79$ (C_6H_6). VIII (35 mg.) in 2 cc. $\text{C}_5\text{H}_5\text{N}$ and 200 mg. 3,5(O_2N) $2\text{C}_6\text{H}_3\text{COCl}$ heated 0.5 hr. on the water bath yielded 38 mg. 3,5-dinitrobenzoate of VIII, m. 208.degree. (CHCl_3 - MeOH).

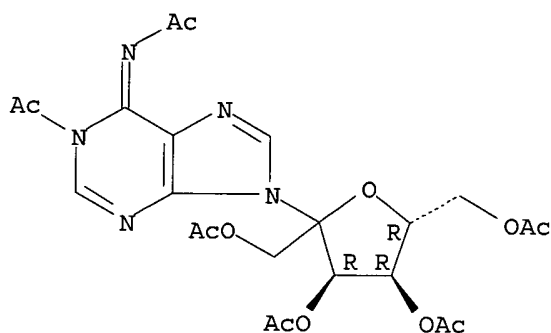
1,4-Androstadiene-3,17-dione (1 g.) in dry Et_2O added dropwise at room temp. to MeMgI from 500 mg. Mg and 2.84 g. MeI in Et_2O , the mixt. heated 1 hr., and worked up gave 180 mg. solid, which recrystd. twice from cyclohexane yielded 10 mg. 3,17-dimethyl-1,4-androstadiene-3.xi.,17.beta.diol, m. 188.degree.; the mother liquor evapd. and heated in PrOH or treated with alc. HCl or HCO_2H at 20 and at 100.degree. gave mixts. of various substances. Testosterone propionate (IX) (5.167 g.) in 160 cc. dry Et_2O treated at -2.degree. with a few drops HBr - AcOH and then 4.875 g. Br in 45 cc. AcOH , evapd. after 10 min., filtered, the filtrate evapd. in vacuo, and the residues combined gave 5.86 g. 2,6- Br_2 deriv. (X) of IX, m. 159-60.degree. (decompn.) (CHCl_3 - EtOH); it decompd. soon in air with browning. X (5.8 g.) and 30 cc. collidine refluxed 0.5 hr., cooled, filtered, the filtrate poured with cooling into 6N HCl , extd. with Et_2O , and the residue from the ext. chromatographed on Al_2O_3 yielded 2.15 g. 1,4,6-androstatrien-17.beta.-ol-3-one propionate (XI), m. 130-2.degree. (Me_2CO -hexane), $[\alpha]_D^{25} -9.4$.degree. (EtOH). XI (600 mg.) and excess (iso- PrO) 3Al in 40 cc. abs. iso- PrOH refluxed 6 hrs. with overhead removal of distillate, added dropwise to 7 cc. concd. HCl and 40 cc. iso- PrOH , refluxed 0.5 hr., dild. with H_2O , extd. with Et_2O , the residue from the ext. heated 1 hr. on the water bath with 6 cc. $\text{C}_5\text{H}_5\text{N}$ and 3 cc. Ac_2O , and the crude product chromatographed on Al_2O_3 yielded 335 mg. acetate (XII) of 1-methyl-1,3,5(10),6-estratetraen-17.beta.-ol (XIII), leaflets, m. 115.degree. (MeOH), $[\alpha]_D^{25} -142$.degree. (EtOH). XII (150 mg.) in 0.5N KOH - MeOH refluxed 1 hr., dild. with H_2O , extd. with Et_2O , and the crude product chromatographed twice on Al_2O_3 yielded 50 mg. oily XIII,

[.alpha.]25D -89.degree. (EtOH). XII (250 mg.) in MeOH hydrogenated 45 min. with 100 mg. prehydrogenated PdO, filtered, evapd., and the residue chromatographed on Al₂O₃ yielded 200 mg. acetate (XIV) of 1-methyl-1,3,5(10)-estratrien-17.beta.-ol (XV), m. 125.degree. (MeOH), [.alpha.]25D 134.degree. (EtOH), Rf 0.66 (C₆H₆). XIV (70 mg.) and 15 cc. 0.5N KOH-MeOH refluxed 35 min. under N, dild. with H₂O, and extd. with Et₂O yielded 10 mg. XV, m. 103.degree. (MeOH), [.alpha.]25D 144.degree. (EtOH), Rf 0.49 (95:5 C₆H₆-Me₂CO). XI (2.15 g.) in 100 cc. dry Et₂O added dropwise with stirring during 0.5 hr. to 2 g. LiAlH₄ in 100 cc. dry Et₂O, refluxed 0.5 hr., worked up, the crude product refluxed 0.5 hr. with 50 cc. EtOH and 2 cc. concd. HCl, dild. with H₂O, extd. with Et₂O, the residue from the ext. (2 g.) kept 13 hrs. in 20 cc. C₅H₅N and 10 cc. Ac₂O, and the crude product chromatographed 4 times on Al₂O₃ yielded 25 mg. pure XII, and 30-40% 4,6-androstadien-17.beta.-ol-3-one acetate, needles, m. 142.degree. [.alpha.]24D -9.8.degree. (EtOH). Crude 1,4,6-cholestatrien-3-one (4.4 g.) reduced with 1 g. LiAlH₄ in Et₂O, the crude product (4 g.) treated with 1.5 cc. concd. HCl in 150 cc. EtOH, and chromatographed on Al₂O₃ gave 120 mg. oily material, which subjected to a 23-transfer countercurrent distribution gave oily 1-methyl-19-nor-1,3,5(10),6-cholestatetraene. XI (250 mg.) in 20 cc. dry Et₂O treated dropwise with 20 equivs. MeMgI in Et₂O, the resulting 215 mg. light yellow oil refluxed 1 hr. with 50 cc. EtOH and 2.4 cc. concd. HCl, dild. with H₂O, extd. with Et₂O, and the crude product (190 mg.) chromatographed on Al₂O₃ gave 75 mg. 3-Me deriv. contg. some 4,6-dien-3-one; the mixt. (75 mg.), 3 cc. C₅H₅N, and 1.5 cc. Ac₂O heated 1 hr. on the steam bath, and the crude product (79 mg.) chromatographed on Al₂O₃ gave 50 mg. 3-Me deriv. (XVI), needles, m. 142.degree. (MeOH), [.alpha.]25D -148.5.degree. (EtOH). XVI (30 mg.) in MeOH hydrogenated over 40 mg. prehydrogenated PdO gave the 3-Me deriv. (XVII) of XIV, m. 103.degree. (MeOH), [.alpha.]26D 137.degree. (EtOH). Crude XVII (76 mg.) refluxed 1 hr. with 10 cc. 0.5N KOH-MeOH, dild. with H₂O, extd. with Et₂O, and the residue from the ext. chromatographed on Al₂O₃ yielded 55 mg. impure 1-Me deriv. of XV, which treated with 3,5-(O₂N)₂C₆H₃COCl and chromatographed gave 11 mg. 3,5-dinitrobenzoate, m. 224.degree. (CHCl₃MeOH). III (5 g.) and 6.5 g. amorphous Se heated 2 hrs. at 280-300.degree. and 10 hrs. at 340-60.degree., cooled, boiled with C₆H₆, and chromatographed twice on Al₂O₃ yielded 35 mg. V, m. 110-20.degree., and 21 mg. XVIII, leaflets, m. 249.5-50.5.degree.. III (4.36 g.) and 6 g. Se heated during 12 hrs. to 325.degree. and the crude product chromatographed repeatedly on Al₂O₃ gave 7.5 mg. 8-methyl-3'-isooctyl- or 3',8-dimethyl-3'-isooctyl-1,2-cyclopentenophenanthrene (XIX), m. 94.5.degree., 98.5 (on Kofler block), 27.8 mg. hydrocarbon, m. 81.degree., which gave with 1,3,5-C₆H₃(NO₂), an adduct, m. 132-3.degree. (EtOH), and traces of V. Crude XIX (850 mg.) again heated 12 hrs. with 700 mg. Se at 335.degree. and chromatographed on Al₂O₃ gave 10.5 mg. V, needles, m. 129-30.degree. (EtOH).

IT 100802-44-6, Adenine, N,1-diacetyl-9-D-psicofuranosyl-,
1',3',4',6'-tetraacetate
(prepn. of)
RN 100802-44-6 CAPLUS
CN Adenine, N,1-diacetyl-9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate (7CI)
(CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



L3 ANSWER 172 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1962:60740 CAPLUS

DN 56:60740

OREF 56:11647b-h

TI The synthesis of 9.alpha.-hydroxy steroids

AU Sih, Charles J.

CS Univ. of Wisconsin, Madison

SO J. Org. Chem. (1961), 26, 4716-18

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

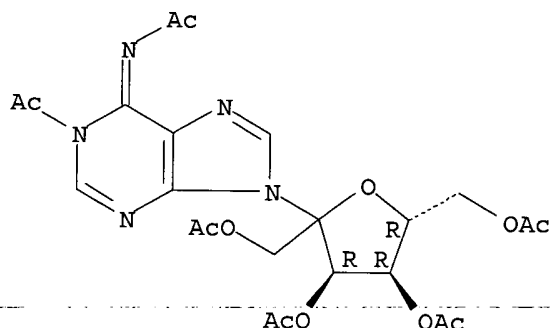
LA Unavailable

AB 4,9(11)-Pregnadiene-17.alpha.,21-diol-3,20-dione 21-acetate (2 g.) was dissolved in an ice-cold 0.026M soln. of perbenzoic acid (I) in 500 ml. CHCl₃, the mixt. allowed to remain in the refrigerator 20 hrs. (consumption of 1.10 mole equivs. I by iodine titration), the CHCl₃ soln. extd. with 0.05M NaI in 0.01N H₂SO₄, 0.05N Na₂SO₃, 0.5N NaHCO₃, and H₂O, dried over Na₂SO₄, and concd. to dryness to give 97% 9.alpha.,11.alpha.-oxido-4-pregnene-17.alpha.,21-diol-3,20-dione 21acetate (II), m. 240-5.degree.. Recrystn. from Me₂CO gave pure II, m. 248-9.degree., [α]_D²⁵ 100.degree. (c 1.0, CHCl₃), γ . 238 m.mu. (ϵ . 16,000) (alc.), γ . 2.90, 5.79, 6.00, 6.18 .mu. (CHCl₃). To 1.0 g. II in 12 ml. MeOH was added 2.5 ml. 10% aq. K₂CO₃ (O free), the mixt. stirred under N 1 hr., 0.4 ml. AcOH and 120 ml. ice H₂O added, after cooling the cryst. ppt. collected, and dried in vacuo to give 80% crude 9.alpha.,11.alpha.-oxido-4-pregnene-17.alpha.,21-diol-3,20-dione (III). Extn. of the filtrate with CHCl₃ yielded an addnl. 9% III. Recrystn. from Me₂CO afforded pure III, m. 213-15.degree., [α]_D²⁵ 86.degree. (c 1.0, dioxane), γ . 238 m.mu. (ϵ . 16,600) (alc.), γ . 2.98, 5.85, 6.06 .mu. (Nujol). To 5.0 g. III in 500 ml. AcOH and 500 ml. H₂O was added 40 g. Na bismuthate, the mixt. shaken vigorously at room temp. in the dark 4 hrs., the soln. filtered, the ppt. washed with CHCl₃, the total filtrate extd. with CHCl₃, the CHCl₃ soln. washed with NaHCO₃ and exhaustively with H₂O, dried over Na₂SO₄, concd. to dryness, and the cryst. residue (3.33 g.) chromatographed over 20 g. acid-washed Al₂O₃. Elution with 1:2 hexane-C₆H₆ yielded 65% 9.alpha.,11.alpha.-oxidoandrostene-3,17-dione (IV), m. 270-2.degree.. Recrystn. from Me₂CO afforded pure IV, m. 272-4.degree., [α]_D²⁵ 185.degree. (c 1.0, CHCl₃), γ . 236 m.mu. (ϵ 16,000), .mu. 5.76, 6.02, 6.18 .mu. (CHCl₃). A soln. of 1 g. IV in 30 ml. dry tetrahydrofuran was slowly added with stirring to 2 g. LiAlH₄ in 50 ml. tetrahydrofuran, the mixt. stirred 16 hrs., refluxed 4 hrs., the excess LiAlH₄ decompd. by cautious addn. of H₂O, the mixt. filtered, the ppt. washed with tetrahydrofuran, the filtrate dried over Na₂SO₄, and concd. to dryness to yield 910 mg. residue, consisting of 4-androstene-3.beta.,9.alpha.,17.beta.-triol (V) and 4-androstene-3.alpha.,9.alpha.,17.beta.-triol (VI). To 500 mg. of the mixt. contg. V and VI in 75 ml. CHCl₃ was added 5.0 g. MnO₂, the mixt. stirred 16 hrs., filtered, the ppt. washed with CHCl₃, the filtrate concd.

to dryness, and the residue (452 mg.) chromatographed over 10 g. acid-washed Al₂O₃. Elution with C₆H₆CHCl₃ afforded 162 mg. 9.alpha.-hydroxytestosterone (VII), m 210-11.degree. (Me₂CO-petr. ether), [.alpha.]_D²⁵ 104.degree. (c 1.0, CHCl₃) 242 ms, (e 15,200) (alc.), .gamma. 2.92, 6.03, 6.20 .mu. (CHCl₃) A soln. of 30 mg. CrO₃ and an equiv. amt. of H₂SO₄ in 3 ml Me₂CO was added dropwise with stirring to 100 mg. VII in 10 ml. Me₂CO, after completion of the reaction the chromic sulfate removed by centrifugation, washed with Me₂CO, the combined Me₂CO washings evapd. to dryness, the residue taken up in CHCl₃, washed with H₂O, dried over Na₂SO₄ the soln. concd., and the residue crystd. from Me₂CO hexane to yield 67 mg. 9.alpha.-hydroxyandrostene-3,17-dione, m 220-2.degree., [.alpha.]_D²⁵ 182.degree. (c 0.9, CHCl₃), .gamma. 242 m.mu. (.epsilon. 16,000 (alc.), .gamma. 2.90, 5.75, 6.01, 6.18 .mu. (CHCl₃).

IT 100802-44-6, Adenine, N,1-diacetyl-9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate (prepn. of)
 RN 100802-44-6 CAPLUS
 CN Adenine, N,1-diacetyl-9-D-psicofuranosyl-, 1',3',4',6'-tetraacetate (7CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.



L3 ANSWER 173 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1962:41815 CAPLUS
 DN 56:41815
 OREF 56:7938f-g
 TI Effect of selective acylation on the oral absorption of a nucleoside by humans
 AU Hoeksema, H.; Whitfield, G. B.; Rhuland, L. E.
 CS Upjohn Co., Kalamazoo, MI
 SO Biochem. Biophys. Research Commun. (1961), 6, 213-16
 DT Journal
 LA Unavailable
 AB Psicofuranine (I) was acetylated with acetic anhydride in pyridine at room temp. to yield a tetraacetate (II), pentaacetate (III), and hexaacetate (IV). II demonstrated efficacy against Streptococcus hemolyticus subcutaneously in mice equal to that of I, while III and IV were significantly less active. By the oral route in mice II was twice as active as I. Single dose oral-absorption studies in humans showed II to be well absorbed while I was not absorbed. Urines of human subjects receiving II contained only I, suggesting that II was rapidly converted to I either by blood esterases or through an active transport absorption process. The outstanding phys. difference between I and II is the greatly increased lipophilic character of II. Soly. in CHCl₃ is I 0.007 and II >150 mg./ml.
 IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- 79060-74-5

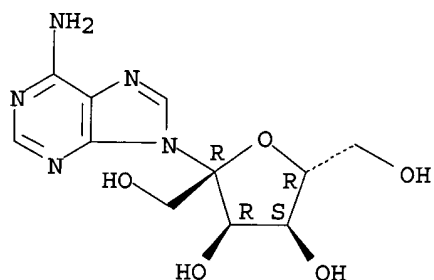
09567863

, Adenine, 9-.beta.-D-psicofuranosyl-, 1',3',4',6'-tetraacetate
100658-94-4, Adenine, N-acetyl-9-.beta.-D-psicofuranosyl-,
tetraacetate 100687-54-5, Diacetamide, N-(9-.beta.-D-
psicofuranosylpurin-6-yl)-, tetraacetate
(bactericidal action of, absorption and)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

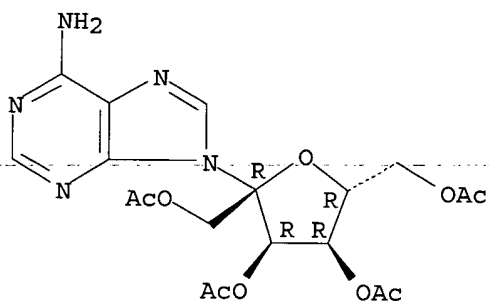
Absolute stereochemistry.



RN 79060-74-5 CAPLUS

CN 9H-Purin-6-amine, 9-(1,3,4,6-tetra-O-acetyl-.beta.-D-psicofuranosyl)-
(9CI) (CA INDEX NAME)

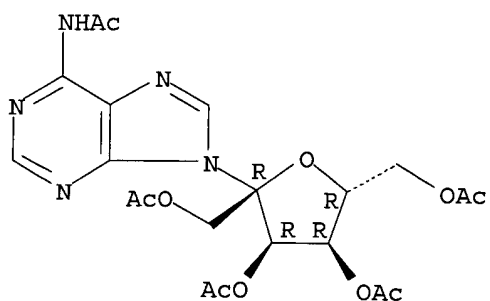
Absolute stereochemistry.



RN 100658-94-4 CAPLUS

CN Adenine, N-acetyl-9-.beta.-D-psicofuranosyl-, tetraacetate (7CI) (CA
INDEX NAME)

Absolute stereochemistry.



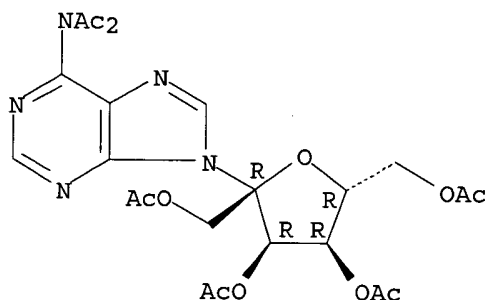
RN 100687-54-5 CAPLUS

CN Diacetamide, N-(9-.beta.-D-psicofuranosylpurin-6-yl)-, tetraacetate (7CI)

09567863

(CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 174 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1962:33801 CAPLUS

DN 56:33801

OREF 56:6438e-g

TI Feed containing an arsenical and poly(vinylpyrrolidinone)

PA Vernon Dawe; Dawe's Laboratories, Inc.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 3015564

US

19590304

AB The addn. of poly(vinylpyrrolidinone) (I) to animal feed increased the growth rate of poultry. Furthermore, it acts as a detoxicant when arsonic acid compds. such as 3-nitro-4 hydroxybenzenearsonic acid (II) are added to the feed. Twelve birds (one-day old, broad breasted bronze poults) were fed a starter diet contg. 0.05% by wt. of com. I. At the age of 4 weeks the birds weighed 3.6% more than the control group fed the starter diet alone (626 g. vs. 604 g.). The animals consumed less feed per g. of final wt. than those of the control group (1.57 g. vs. 1.62 g.). When the birds were fed a starter diet contg. 0.0198% by wt. of II, their av. wt. reached only 440 g. When 0.05% of I was added to the diet contg. II, the wt. increased to 526 g. (17.9%).

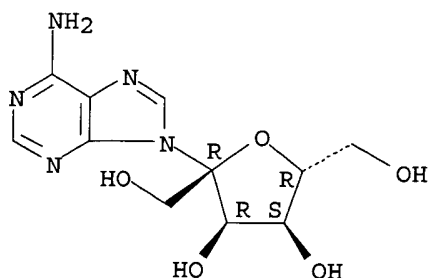
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-

(in histidine metabolism by Escherichia coli, induction mechanism and)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 175 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1962:22354 CAPLUS

09567863

DN 56:22354

OREF 56:4220b-e

TI Investigations on SnS

AU Albers, W.; Haas, C.; Vink, H. J.; Wasscher, J. D.

CS N. V. Philips' Gloeilampenfabrieken, Eindhoven, Neth.

SO J. Appl. Phys. (1961), 32, 2220-5

DT Journal

LA Unavailable

AB The p, T, x diagram of the Sn-S system was detd., especially in the region of the compd. SnS. The pressure of S₂ in equil. with SnS and a liquid phase was found to extend over several decades up to 25 mm. Hg at the "Sn-rich" side, whereas at the "S-rich" side the S₂ pressures in equil. with solid SnS and a liquid phase lie between 25 mm. Hg and 100 mm. Hg. The existence region of solid SnS very probably lies entirely at the excess-sulfur side. The hole mobility in a plane perpendicular to the c axis, $\approx 90 \text{ cm}^2/\text{v. sec.}$ at room temp., was proportional to $T^{-2.2}$ for higher temps. The mobility in the direction of the c axis was about 1/5 as great. Reversible annealing effects were found for temps, above 200.degree.C. which could be explained by assuming assocn. of neutral Sn vacancies. Absorption measurements showed that the edge absorption is due to indirect transitions. The bandgap was 1.08 e.v. at 300.degree.K. and 1.115 e.v. at 77.degree.K. Interband transitions in the valence band were also found. The effective charge of the atoms ($e^* = 0.7 \text{ c0}$) and the effective masses of the holes in the 3 principal crystal directions ($m_a^* = m_b^* = 0.20 \text{ m0}$; $m_c^* \approx m_0$) were detd. from reflection measurements in the infrared. From these values and the value for the d. of states mass obtained by means of the Seebeck effect ($m_d^* \approx 0.95 \text{ m0}$), the no. of equiv. max. of the valence band was at least 4.

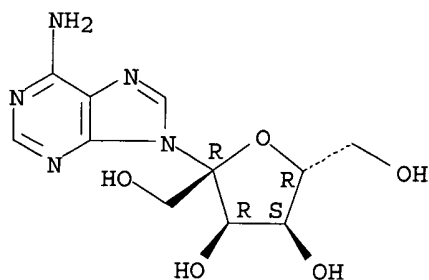
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-

(guanylic synthetase inhibition by, in Escherichia coli mutant)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 176 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1962:21459 CAPLUS

DN 56:21459

OREF 56:4067g-h,4068a

TI Buthiopurine in the treatment of acute leukemias and terminal blastic stages of chronic myeloid leukemias

AU Cerny, V.; Winkler, A.; Ujhazy, V.; Sandor, L.; Sutekova, M.

CS Vyzkumny Ustav Onkol., Bratislava, Czech.

SO Neoplasma (1961), 8, 305-9

DT Journal

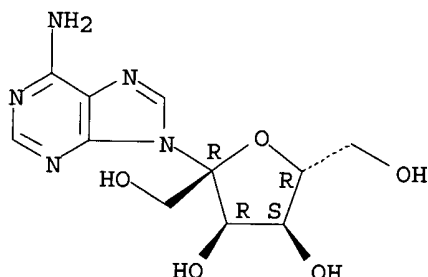
LA English

AB The title compd. [6-(4-car-boxybutyl)thiopurine] showed in 19 patients a greater range, higher cytostatic effect, and lower toxicity than 6-mercapto-purine.

09567863

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(heart response to, in neoplasia treatment)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 177 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1961:124956 CAPLUS
DN 55:124956
OREF 55:23568b-i
TI N-Glycosides of aldoses and ketoses
IN Schroeder, William
PA Upjohn Co.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2993039		19610718	US	
	GB 900959			GB	

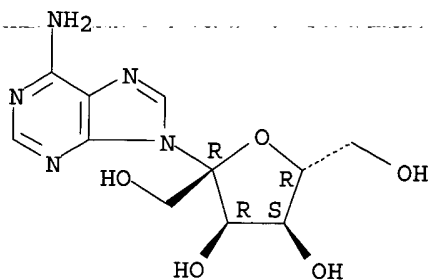
AB Title compds. were prepd. with concurrent epimerization from 3-O-sulfonacyl ketoses, or 2-O-sulfonacyl aldoses of 5-7 C sugars by the reaction with N-glycoside-forming alkyl or aryl amines, or the Na salts of substituted purines or pyrimidines in an inert solvent at 20-30.degree.. The primary OH groups of the sugars may be substituted by triphenylmethyl groups. Thus, 4.4 g. Na adenate (I) was added to 3.4 g. 3-O-methylsulfonyl-D-fructose (II) (Helferich and Jochinke, CA 35, 47427) in 35 ml. abs. EtOH and the mixt. kept 20.degree. overnight to give 3.5 g. solid. A 2 g. sample was subjected to an 800 transfer countercurrent distribution in BuOH:H₂O to yield 0.23 g. 6-amino-9-.beta.-D-psicopyranosylpurine (III), m. 155-60.degree., [.alpha.]_D²⁵ - 174.degree. [c 1.33, HCONMe₂ (IV)], K 0.045, and 0.05 g. 6-amino-9-.beta.-D-psicofuranosylpurine (V), m. 202-4.degree., K 0.17. Alternatively, 4.4 g. III was prepd. by adding 15 g. II to 9.2 g. I in IV. 1,6-Di-O-triphenylmethyl-3-O-methylsulfonyl-D-fructofuranose (VI), prepd. from 5.16 g. II, was treated with 3.47 g. I in IV to form 13 g. crude 6-amino-9-.beta.-(1,6-di-O-triphenylmethyl-D-psicofuranosyl)purine, 3.9 g. of which yielded 0.1 g. V by detritylation with Na and liquid NH₃. V (21 g.) in 245 ml. H₂O was treated with 7 ml. concd. H₂SO₄ at 10.degree. overnight to give 10.3 g. D-psicose (sirup), [.alpha.]_D²⁴ 2.8.degree. (c 5, H₂O). 6-Methylthiopurine (Albert and Brown, CA 50, 15539c) was converted to the Na salt and treated with 2.58 g. II in IV to give 6-methylthio-9-.beta.-D-psicopyranosylpurine, m. 201-3.degree. (Me₂SO), [.alpha.]_D²⁵ - 151.degree. (c 0.542, Me₂SO). Similarly, 10.15 g. II was treated with 5 g. of the Na salt of 7-amino-.gamma.-triazolo[d]pyrimidine (CA 41, 999e) in IV, and the residue from the acetone extn. submitted to 510 countercurrent transfers as described above, to yield 7-amino-3-.beta.-D-psicopyranosyl-.gamma.-triazolo[d]pyrimidine, m.

157-8.degree. (H₂O), K 0.23. In the same way 3.9 g. 2-O-methylsulfonyl-D-arabinose (VII) was treated with 2.7 g. I in IV, and the solid product chromatographed on a Solka-Floc column using aq. NH₄OH, pH 10, as the eluting solvent, to give 6-amino-9-.beta.-D-ribofuranosylpurine, m. 250-2.degree., [.alpha.]_D²⁵ - 36.degree. (c 0.51, H₂O).

2-O-Methylsulfonyl-5-O-triphenylmethyl-D-arabinose (VIII) was treated with I in IV to form 6-amino-9-.beta.-D-ribofuranosylpurine, m. 233-5.degree., [.alpha.]_D²⁵ - 62.degree. (c 0.5, H₂O). Similarly, the reaction of 14.8 g. VI with 2.66 g. of the Na salt of cytosine gave, after detritylation, cytosine 1-.beta.-D-psicofuranoside, m. 202-3.degree.. Piperidine (8.5 g.), reacted with VIII to form piperidine N-D-ribofuranoside, after detritylation. In the same way p-toluidine, p-phenetidine, 2-naphthylamine, morpholine, benzylamine, isobutylamine, and cyclohexylamine N-D-ribofuranosides were prepd. When a mixt. of 8.5 g. piperidine and 2.58 g. II was stirred 2 hrs. at 50.degree., and evapd., piperidine N-D-psicoside was obtained. The addn. of 0.23 g. Na and 1.47 g. phthalimide in EtOH to 2.3 g. VII in EtOH gave cryst. phthalimide N-D-riboside upon evapn. Similarly the reaction of the Na salt of 5,6-dimethylbenzimidazole with VIII gave, after detritylation, 5,6-dimethylbenzimidazole N-D-ribofuranoside. V is active in vivo against Streptococcus hemolyticus. The nucleosides prepd. above are useful in culture media for plant and animal tissue cells, bacteria, fungi, and viruses. The N-D-ribosides are useful as intermediates in the prepn. of vitamin B₂.

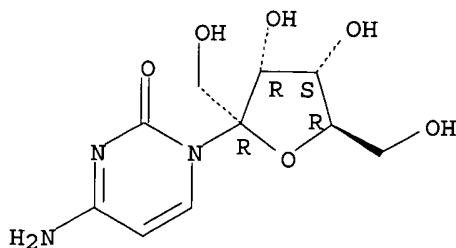
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- 53318-75-5
 , Cytosine, 1-.beta.-D-psicofuranosyl- 122359-58-4, Adenine,
 9-(1,6-di-O-trityl-.beta.-D-psicofuranosyl)-
 (prepn. of)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 53318-75-5 CAPLUS
 CN 2(1H)-Pyrimidinone, 4-amino-1-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

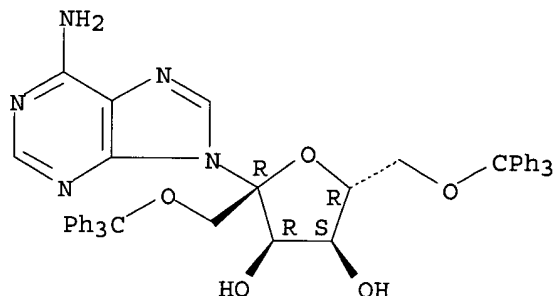
Absolute stereochemistry.



09567863

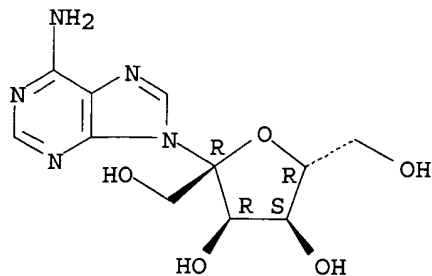
RN 122359-58-4 CAPLUS
CN Adenine, 9-(1,6-di-O-trityl-.beta.-D-psicofuranosyl)- (6CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 178 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1961:113596 CAPLUS
DN 55:113596
OREF 55:21385f-g
TI Studies with psicofuranine in tumor bearing rat
AU Magee, Wayne E.; Eberts, Floyd S., Jr.
CS Upjohn Co., Kalamazoo, MI
SO Cancer Research (1961), 21, 611-19
DT Journal
LA Unavailable
AB Administration of psicofuranine at 500 mg./kg./day for 1 week in rats bearing Walker 256 adenocarcinoma caused a marked regression and a drop in utilization of phosphate-P32 uptake in tumors. It was possible to find small amts. of the psicofuranine phosphates in tissues by use of psicofuranine labeled with tritium. No more than traces of the drug could have been incorporated into nucleic acids. Incorporation of glycine-2-C14 into nucleic acid purines and protein was inhibited in tumor tissue by the drug, while in contrast, the liver showed increases in incorporation into adenine nucleotides and nucleic acids.
IT 1874-54-0, Psicofuranine
(as neoplasm inhibitor)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



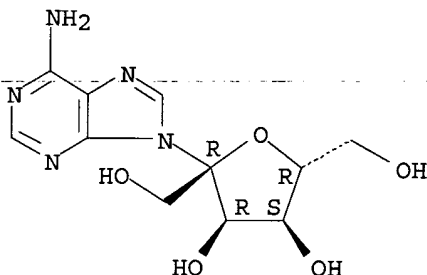
L3 ANSWER 179 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1961:113595 CAPLUS
DN 55:113595

09567863

OREF 55:21385c-f

TI Comparative chemotherapy studies on primary short-term cultures of human normal, benign, and malignant tumor tissues-a five year study
AU Cobb, Jewell Plummer; Walker, Dorothy G.; Wright, Jane C.
CS New York Univ., New York
SO Cancer Research (1961), 21, 583-90
DT Journal
LA Unavailable
AB Cytological alterations in primary short-term tissue cultures of 196 malignant neoplasms, 8 benign neoplasms, and 14 normal tissues of human origin following a 96-hr. exposure to chemotherapeutic agents have been described. Test agents listed in order of decreasing cytotoxic capacities in vitro were thio-TEPA, actinomycin D, chlorambucil, methotrexate, and phenylalanine mustard. Certain trends in response included: (a) sensitivity of lymphosarcoma, Hodgkin's disease, and lymphomas of undetd. type to chlorambucil; (b) sensitivity of lymphomas of undetd. type to thio-TEPA; (c) sensitivity of fibrosarcomas to actinomycin D, chlorambucil, and thio-TEPA; (d) sensitivity of certain carcinomas to methotrexate and phenylalanine mustard; (e) resistance of lymphosarcomas to methotrexate and phenylalanine mustard; (f) resistance of breast carcinomas to chlorambucil; and (g) resistance of all melanomas to phenylalanine mustard. No relation between tissue-culture response to drug and (a) growth rate in vitro prior to therapy, (b) primary or metastatic lesion, or (c) prior in vivo therapy was found.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(as neoplasm inhibitor)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

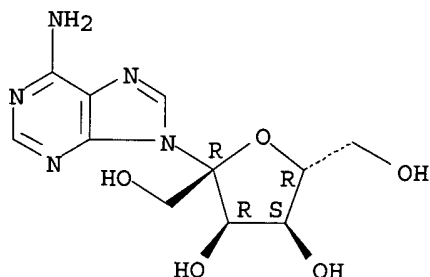
Absolute stereochemistry.



L3 ANSWER 180 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1961:87799 CAPLUS
DN 55:87799
OREF 55:16631d-e
TI Inhibition of xanthosine 5'-phosphate aminase by psicofuranine
AU Slechta, Libor
CS Upjohn Co., Kalamazoo, MI
SO Biochem. Biophys. Research Commun. (1960), 3, 596-8
DT Journal
LA Unavailable
AB The inhibition was demonstrated in cell-free exts. of Escherichia coli B.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(xanthylc aminase inhibition by)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

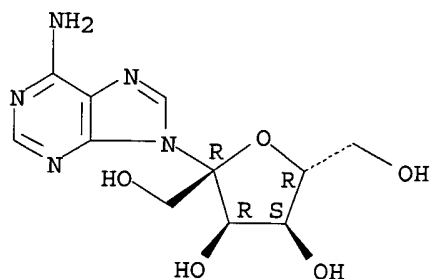
Absolute stereochemistry.

09567863



L3 ANSWER 181 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1961:76354 CAPLUS
DN 55:76354
OREF 55:14529h-i,14530a
TI Kinetics of the hydrolytic degradation of a nucleoside, the antibiotic psicofuranine
AU Garrett, Edward R.
CS Upjohn Co., Kalamazoo, MI
SO J. Am. Chem. Soc. (1960), 82, 827-32
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
AB The nucleoside, the antibiotic psicofuranine, 6-amino-9-D-psicofuranosylpurine, (I), is degraded by H⁺ and OH⁻. The products are adenine and the sugar psicose with the former catalyst and possibly with the latter. The rates are linear functions of the concns. of the neutral [P], protonated [PH⁺] and anionic [P⁻], nucleoside and can be expressed: $d[P]_{total}/dt = \{k_2[H^+]k_3[OH^-]\} [P] + k_1[H^+][PH^+] + k_4[OH^-][P^-]$. The uncharged I is hydrolyzed with bimol. rate constants approx. 2.5 times faster than the charged species due to the repulsion of the catalytic species, H⁺ or OH⁻, by the positively or negatively charged I ions, resp. Estimates of the pK_a of the acid function in the sugar portion of the nucleoside have been made from the studies of the variations of the bimol. rate constant for hydrolyses with pH approx. 12.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- (hydrolysis of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

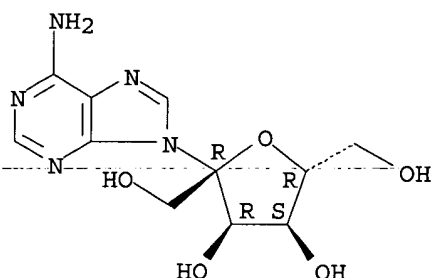


L3 ANSWER 182 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1961:60105 CAPLUS
DN 55:60105
OREF 55:11550f-i
TI A plaque suppression method for the study of antiviral compounds

09567863

AU Siminoff, Paul
CS Upjohn Co., Kalamazoo, MI
SO Appl. Microbiol. (1961), 9, 66-72
DT Journal
LA Unavailable
AB cf. Herrmann, et al., CA 54, 14346a. The successful use of plaque-forming systems in studying the antiviral activity of pure compds. and samples from fermented media is described. Among the pure compds. used in these tests were diethylamino-.alpha.-hydroxypropionaldehyde-HCl and psicofuranine. Chick embryo fibroblasts and chick embryo kidney cells were grown in monolayers in modifications of Earle's balanced salt soln. supplemented with lactalbumin hydrolyzate, yeast ext., and bovine serum plasma albumin, together with penicillin, streptomycin, and nystatin. The agar medium was added to Petri plates and overlaid with the cell suspension, previously infected with Newcastle disease virus (strain NJ-KD) or vaccinia virus. Paper discs impregnated with the test solns. were placed on top of the agar and after 3 days' incubation at 37.degree. the zones of growth and plaque suppression were measured. In some studies a larger dish was used and paper chromatograms placed on the agar. The Newcastle disease virus was inhibited by the diethyl-amino-.alpha.-hydroxypropionaldehyde and the psicofuranine inhibited the vaccinia.
IT 1874-54-0, Psicofuranine
(effect on vaccinia virus)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



(effect on Vaccinia virus)

L3 ANSWER 183 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1961:48692 CAPLUS
DN 55:48692
OREF 55:9409e-i, 9410a
TI Potential anticancer agents. XXVI. Synthesis of nucleosides derived from D-fructose
AU Reist, Elmer J.; Hart, Phillip A.; Baker, B. R.
CS Stanford Research Inst., Menlo Park, CA
SO J. Org. Chem. (1959), 24, 1640-3
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA Unavailable
AB The reaction of chloromercuri derivs. of purines with the appropriately blocked derivs. of D-fructose gave 9-(.alpha.-D-fructofuranosyl)adenine (I) and 9-(.beta.-D-fructopyranosyl)adenine (II). The stereochemistry of the condensations was discussed. To 2.0 g. 1,3,4,6-tetra-O-benzoyl-D-fructofuranose (III) (Brigl and Schinle, CA 28, 16673) in 60 ml. anhyd. Et2O satd. with dry HCl at 0.degree. was added 2.25 g. AcCl, the soln. stored 2 days at 0.degree., concd. in vacuo at 30.degree., and the residue evapd. in vacuo twice with C6H6 to give chloro sugar (IV), [.alpha.]30D

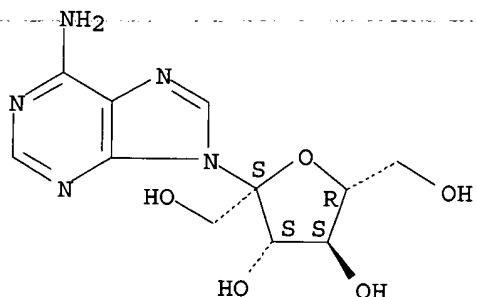
8.8 \pm 2.8.degree. (c 0.89, CH₂Cl₂), essentially no HO absorption at 2.9 μ . IV in 200 ml. dry xylene condensed with 1.82 g. chloromercuri-6-benzamidopyrine (V) [prepd. from HgCl₂ and 6-benzamidopurine as described for chloromercuri-2,6-diacetamidopurine, (CA 52, 3822h)] in the usual manner (CA 53, 3230e) and the org. phase evapd. gave 2.3 g. crude blocked I, foam, λ . (film) 3.25, 5.77, 7.9, 9.0, 9.75 μ . Crude blocked I (2.3 g.) in 45 ml. MeOH and 4.2 ml. N MeOH-MeONa refluxed 40 min., the soln. neutralized with Dowex 50 (H⁺ form), the mixt. filtered, the filtrate evapd. in vacuo, the residue dissolved in H₂O, the soln. extd. with Et₂O, the aq. phase evapd. in vacuo, the residue dissolved in MeOH, the soln. treated with 18 ml. 10% picric acid MeOH, the mixt. kept 1 hr. at 0.degree., the ppt. filtered off, washed with cold MeOH, suspended in H₂O, the mixt. treated portionwise during 1 hr. with stirring with 1.0 g. (total) Dowex 2 (CO₃²⁻ form) until the ppt. dissolved, filtered, and the filtrate evapd. in vacuo gave 0.17 g. crude I, $[\alpha]$ _D 42.6.degree. (c 1, H₂O), RAD (RAD as in preceeding part) 0.43 in BuOH satd. with H₂O (solvent A) and RAD 1.68 in 5% aq. Na₂HPO₄ (solvent B); recrystn. from abs. EtOH gave I, m. 234-5.degree. (decompn.), $[\alpha]$ _D 46.8 \pm 3.1.degree. (c 1.03, H₂O). 1,3,4,5-Tetra-O-benzoyl-D-fructopyranosyl bromide (8.2 g.) in dry xylene treated with 8 g. V as usual and the nucleoside isolated through the picrate as above gave 1.7 g. crude II, foam, $[\alpha]$ _D -75 \pm 3.degree. (c 1, MeOH), RAD 0.20 and 1.63 in A and B, resp. Crude II (1.4 g.) treated with 20 ml. hot EtOH and the resulting solid recrystd. from abs. EtOH gave 0.6 g. II, m. 227-8.degree. (decompn.), $[\alpha]$ _D -171 \pm 4.degree. (c 1, H₂O).

IT 6936-84-1, Adenine, 9- α -D-fructofuranosyl-
(prepn. of)

RN 6936-84-1 CAPLUS

CN 9H-Purin-6-amine, 9- α -D-fructofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 184 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1961:28517 CAPLUS

DN 55:28517

OREF 55:5663c-d

TI Mode of action of psicofuranine

AU Slechta, L.

CS Upjohn Co., Kalamazoo, MI

SO Biochem. Pharmacol. (1960), 5, 96-107

DT Journal

LA Unavailable

AB Inhibition of the growth of Escherichia coli B by psicofuranine was only transitory, and the action could be reversed by guanine and its derivs. Other purines and pyrimidines were inactive. Cells growing in the presence of the antibiotic excreted xanthosine. Measurements of purine synthesis from glycine-1-C¹⁴ in whole cells under the influence of

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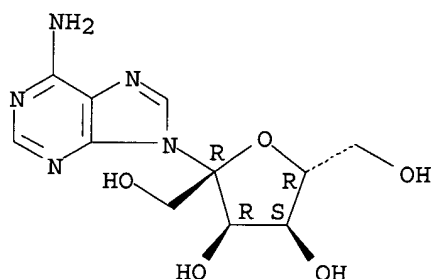
psicofuranine showed a decreased isotope incorporation into guanine with an increase in radioactivity of xanthine. No effect of incorporation of glycine-1-C14 into adenine was observed. Similar results were noted when the conversion of hypoxanthine-8-C14 into adenine and guanine was measured in inhibited cells. Results showed that the antibiotic inhibited conversion of xanthosine 5'-phosphate to guanosine 5'-phosphate.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(bactericidal action of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 185 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1961:18496 CAPLUS

DN 55:18496

OREF 55:3720g-h

TI Mechanism of action of psicofuranine

AU Hanka, Ladislav J.

CS Upjohn Co., Kalamazoo, MI

SO J. Bacteriol. (1960), 80, 30-6

DT Journal

LA Unavailable

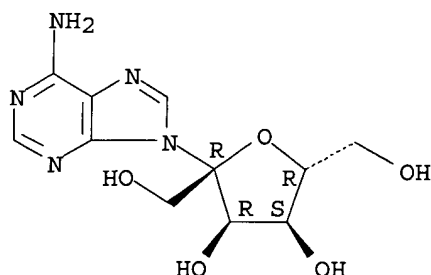
AB The mechanism of action of psicofuranine was studied by quant. reversal of its antimicrobial action on Staphylococcus aureus. The inhibition was effectively reversed by several compds. contg. purine bases. The most effective contained guanine. Adenine- and hypoxanthine-contg. nucleosides and nucleotides were much less active. The exptl. evidence indicated that psicofuranine interfered with the biosynthesis of guanylic acid from xanthylic acid.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(effect on Staphylococcus aureus)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

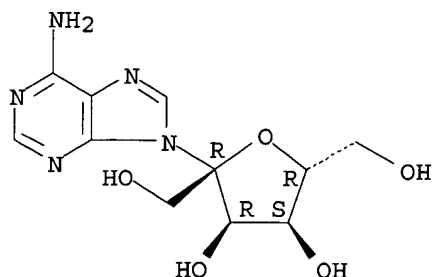
Absolute stereochemistry.



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L3 ANSWER 186 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1961:3805 CAPLUS
DN 55:3805
OREF 55:779e-h
TI Psicofuranine. Kinetics and mechanisms in vivo with the application of the analog computer
AU Garrett, Edward R.; Thomas, Richard C.; Wallach, Donald P.; Alway, Clayton D.
CS Upjohn Co., Kalamazoo, MI
SO J. Pharmacol. Exptl. Therap. (1960), 130, 106-18
DT Journal
LA Unavailable
AB Application of the computer technique to the interpretation of pharmacol. data obtained by administration of psicofuranine (I) (cf. CA 53, 22215d) to dogs is consistent with the results of anal. math. The method and equipment permitted the automatic plotting of drug levels in all physiol. depots at any time after intravenous or oral administration. For I at least 1 other large vascular space of enhanced permeability may exist in the intact dog that is not present after nephrectomy; the intravenous dosage blood level data are not consistent with the premise of only 1 vascular space, no matter what permeability and size are hypothesized. On oral administration I is primarily absorbed from the intestine. This is consistent with a postulated pH 2.2 of the stomach and with the model of nonabsorption of the ionized drug of pK' 3.9. Appearance of the drug in the urine does not preserve material balance. Some irreversible binding or consumption of the drug occurs within the animal. Kinetic investigation of the acid-catalyzed degradation of I permitted estn. of in vivo degradation in the gastrointestinal tract.
IT 1874-54-0, Psicofuranine
(pharmacol. activity of, kinetics and mechanism of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



(pharmacol. activity of, kinetics and mechanisms of

L3 ANSWER 187 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1960:121268 CAPLUS
DN 54:121268
OREF 54:23193h-i
TI Psicofuranine: correlation of assay methods in acid degradation studies
AU Garrett, Edward R.; Hanka, Ladislav J.
CS Upjohn Co., Kalamazoo, MI
SO J. Am. Pharm. Assoc., Sci. Ed. (1960), 49, 526-9
DT Journal
LA Unavailable
AB Acid-catalyzed degradation of psicofuranine (I) gives adenine (II) and psicose. The biol. activity of I in the plate-disk method against

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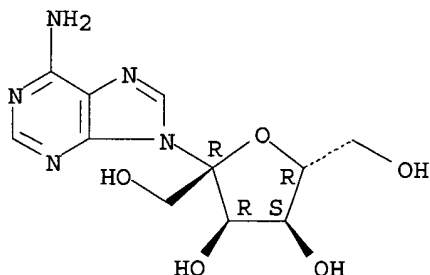
Staphylococcus aureus is apparently reversed by II. When this phenomenon is accounted for by standard curves with the same amt. of II as the material to be assayed, chem. and biol. assays correlate. The kinetic consts. for the acid-catalyzed hydrolysis of I are given.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(assay of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 188 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1960:45975 CAPLUS

DN 54:45975

OREF 54:9095g-h

TI Psicofuranine. VIII. Some pharmacological observations

AU Wallach, Donald P.; Thomas, Richard C.

CS Upjohn Co., Kalamazoo, MI

SO Antibiotics & Chemotherapy (1959), 9, 722-9

DT Journal

LA Unavailable

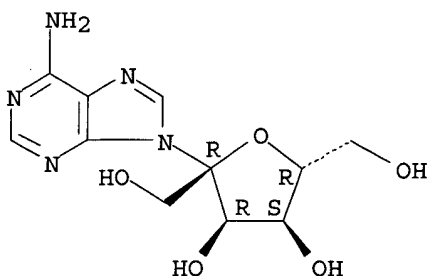
AB cf. C.A. 54, 6851c. Psicofuranine (I) administered intravenously to dogs was mostly excreted unchanged by way of the kidneys; very little was found in the bile. I was well absorbed from the gastrointestinal tract and a high % recovered from the urine. I was also well absorbed when administered intramuscularly but produced considerable pain on injection. I distributed itself to most of the body tissues but very little passed the blood-brain barrier.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(metabolism of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

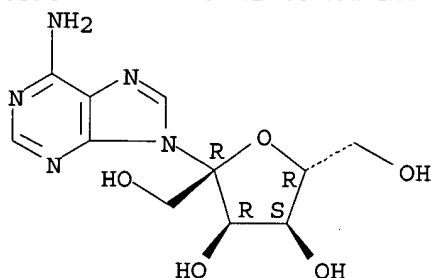


L3 ANSWER 189 OF 201 CAPLUS COPYRIGHT 2003 ACS

09567863

AN 1960:45974 CAPLUS
DN 54:45974
OREF 54:9095d-g
TI Increase of the cathepsin activity of the liver and the skeletal muscle of rats treated with 2,4-dinitrophenol or with bacterial lipopolysaccharide
AU Martini, E.
CS Univ. Genoa, Italy
SO Experientia (1959), 15, 182-3
DT Journal
LA English
AB A study dealing with the behavior of cathepsin activity (I) both of the liver and skeletal muscle of rats injected with one of two pyrogenic substances, 2,4-dinitrophenol (DNP) (II) or lipopolysaccharide of Salmonella abortusovae (LPS) (III), was undertaken. Two types of suspension fluids for 10% homogenates of liver and skeletal muscle were used, namely 0.25M sucrose and 0.25M sucrose contg. 0.1% Triton X-100 (IV). I was detd. by the method of Gianetto and DeDuve (C.A. 49, 7014h) with 0.17M acetate buffer, pH 5, and 0.00026M hemoglobin as substrate was employed as the reaction fluid. A second reaction fluid contained 0.1% IV. Results showed that I of liver homogenates of rats treated with II and III without IV is strongly increased. No significant differences were noted with homogenates prepd. in absence of IV. I of skeletal muscle is strongly increased in treated rats. Rats treated with III showed greater I both in expts. with and without IV. Since the cathepsin which acts on hemoglobin is located in lysosomes, the above results suggest that the change is not due to a real increase of the amt. of enzyme contained in the tissue, but to a damage of the particle in which it is contained.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- (metabolism of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 190 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1960:34596 CAPLUS
DN 54:34596
OREF 54:6851b-d
TI Psiofuranine. VII. Chemical determination in plasma and serum
AU Forist, Arlington A.; Theal, Susan; Hoeksema, Herman
SO Antibiotics & Chemotherapy (1959), 9, 685-9
DT Journal
LA Unavailable
AB cf. C.A. 54, 4893a. A chem. method for detn. of psicofuranine (I) in plasma and serum consisted of neutral pptn. of the proteins with EtOH, redn. of free sugars in the residue from the protein-free filtrate with Na borohydride, and spectrophotometric measurement at 630 m.mu. of I by its reaction product with Ph2NH. Detn. of I added to human plasma and dog serum gave mean deviations of ± 2.8 and ± 2.2 γ /ml., resp., over

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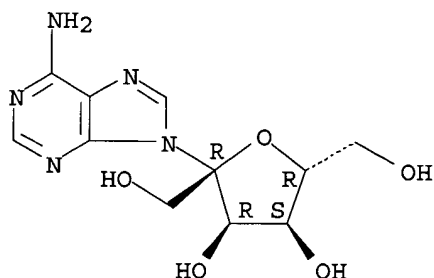
the range 20-100 .gamma./ml.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(detn. of, in blood)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 191 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1960:24610 CAPLUS

DN 54:24610

OREF 54:4893a-c

TI Psicofuranine VI. Antitumor and toxicopathological studies

AU Evans, John S.; Gray, Jack E.

CS The Upjohn Co., Kalamazoo, MI

SO Antibiotics & Chemotherapy (1959), 9, 675-84

DT Journal

LA Unavailable

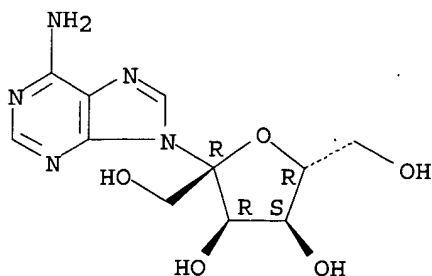
AB cf. C.A. 53, 22215d. Psicofuranine (I) prolonged survival time and produced regressions when administered intraperitoneally at 100 mg./kg./day to rats bearing Walker adenocarcinoma or Jensen sarcoma and orally at 500 mg./kg./day on Murphy-Sturm lymphosarcoma or Guerin tumor. I was ineffective against 3 mice and one chicken tumors. The acute L.D.50 of I given intraperitoneally to mice was 1695 mg./kg. and to rats orally approx. 10,000 mg./kg. Daily oral doses (for 28 days) of 300 mg./kg./day to rats and 100 mg./kg./day to dogs were relatively nontoxic. At higher doses dogs showed wt. loss, degenerative changes of the liver, hypertrophied adrenals, and thyroids of decreased size.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(as neoplasm inhibitor)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

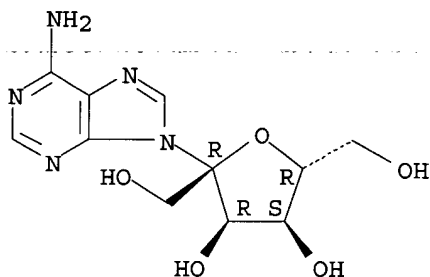


(neoplasm inhibition by and toxicology of

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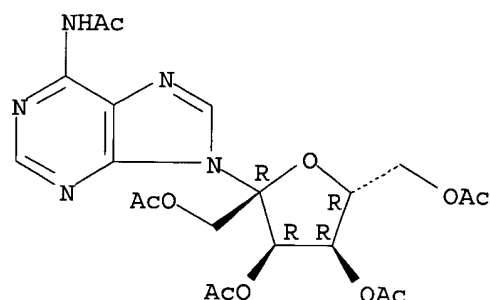
L3 ANSWER 192 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1960:17024 CAPLUS
DN 54:17024
OREF 54:3428i,3429a-b
TI A new antibiotic, angustmycin. VIII. Structure of angustmycin C
AU Yunsten, Hsu
SO J. Antibiotics (Japan) Ser. A (1958), 11, 244-9
DT Journal
LA Unavailable
AB Ic, C₁₁H₁₅N₅O₅, m. 202-4.degree., [α]_D¹⁹ -71.1.degree. (c 1.8, pyridine), gave a neg. ninhydrin reaction and 1 amino group by Van Slyke method. Ic (500 mg.) with Ac₂O in pyridine yielded 400 mg. pentaacetate (XII), needles, m. 115-16.degree. (uncor.) (EtOAc-ligroine). XII (300 mg.) with 0.02N MeONa yielded 96 mg. Ic. Ic (5 g.) heated in 0.5N H₂SO₄ yielded 2.9 g. adenine hemisulfate monohydrate and a viscous sirup (XIII), C₆H₁₂O₆, [α]_D²⁰ 3.2.degree. (c 5, H₂O). XIII gave a phenylosazone, needles, C₁₈H₂₂N₄O₄, m. 161-3.degree. (uncor.) (hot 50% EtOH). XII with NaBH₄ yielded allitol, prisms, m. 149-50.degree. (uncor.), optically inactive, and D-talitol, needles, m. 85-8.degree. (uncor.), [α]_D¹⁹ 3.2.degree. (c 2, EtOH). Ic in HCl-MeOH yielded adenine-HCl and methyl D-psicoside (XIV), C₆H₁₁O₅(OMe). XIV with MeI and Ag₂O and subsequently with Na and Me₂SO₄ yielded Me tetra-O-methyl-D-psicoside (XV), b₂ 104.degree. (uncor.), [α]_D¹⁸ -28.3.degree. (EtOH). XV (100 mg.) with HNO₃ yielded 145 mg. IX. The structure of Ic was considered as 6-amino-9-(.beta.-D-psicofuranosyl)purine.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(angustomycin C identity with)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 100658-94-4, Adenine, N6-acetyl-9-.beta.-D-psicofuranosyl-,
tetraacetate
(prepn. of)
RN 100658-94-4 CAPLUS
CN Adenine, N-acetyl-9-.beta.-D-psicofuranosyl-, tetraacetate (7CI) (CA
INDEX NAME)

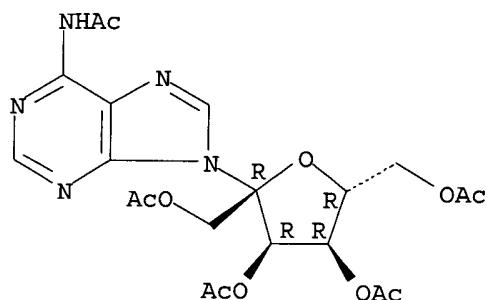
Absolute stereochemistry.



- L3 ANSWER 193 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1960:17023 CAPLUS
 DN 54:17023
 OREF 54:3428c-i
 TI A new antibiotic, angustmycin. VII. Structure of angustmycin A
 AU Yunsten, Hsu
 SO J. Antibiotics (Japan) Ser. A (1958), 11, 233-43
 DT Journal
 LA Unavailable
 GI For diagram(s), see printed CA Issue.
 AB Ia.H₂O has pK_a 9.8. Ia (1.5 g.) with Ac₂O in pyridine yielded 1.6 g. tetraacetate (X), needles, m. 187-8.degree. (EtOAc-ligroine) (uncor.), [α]_D 20D 12.2.degree. (c 1.36, EtOH). X (1 g.) hydrogenated on PtO₂ yielded the dihydro deriv. of Ia tetraacetate (EtOAc-ligroine), needles, m. 177-9.degree. (uncor.). The dihydro deriv. of Ia tetraacetate (800 mg.) with 0.02N MeONa yielded 680 mg. dihydro deriv. of Ia (EtOH), needles, m. 153-4.degree. (uncor.). Ia (5 g.) heated in 0.1N H₂SO₄ yielded 3.6 g. adenine hemisulfate monohydrate (boiling water), m. above 285.degree. (decompn.), and 850 mg. II (EtOH), needles, m. 115-16.degree. (uncor.), [α]_D 20D 18.degree. (c 1, EtOH). II with NaBH₄ in aq. soln. yielded L-fucitol, m. 151-2.degree. (uncor.), [α]_D 18D 18.5.degree. (c 3, EtOH), and III, [α]_D 18D -2.6.degree. (c 2.5, H₂O). Ia (2.5 g.) with EtSH-1% HCl yielded adenine-HCl and 1.2 g. IV, light yellow sirup, [α]_D 22D 44.9.degree. (c 1, EtOH). IV (150 mg.) refluxed with HgCl₂ in aq. EtOH gave II. V, derived from IV, was acetylated to a diacetate, identical with a synthetic diacetate from hydrogenation of maltol and acetylation. VI with Ac₂O in pyridine yielded a diacetate, prisms, m. 125-6.degree. (uncor.), [α]_D 20D -73.6.degree. (c 1.2, EtOH). VII (800 mg.) heated in 0.1N HCl and subsequently with periodate yielded HCO₂H and L-5-deoxy-2,3-di-O-methyllyxonic acid (XI). XI was oxidized to VII, needles (C₆H₆ligroine), m. 160-2.degree. (uncor.). The dihydro deriv. of Ia (500 mg.) heated in N H₂SO₄ yielded adenine hemisulfate monohydrate and 6-deoxytalose, which was reduced to III, needles, m. 106-7.degree., [α]_D 19D -2.8.degree. (c 3, H₂O). Ia.H₂O consumed 2 moles periodate and IV, 1 mole. Ia yielded allomaltol, m. 152-4.degree., by vigorous hydrolysis. Ia is 6-amino-9-(L-1,2-fucopyranosyl)purine.
 IT 100658-94-4, Angustomycin C, N-acetyl-, tetraacetate (prepn. of)
 RN 100658-94-4 CAPLUS
 CN Adenine, N-acetyl-9-.beta.-D-psicofuranosyl-, tetraacetate (7CI) (CA INDEX NAME)

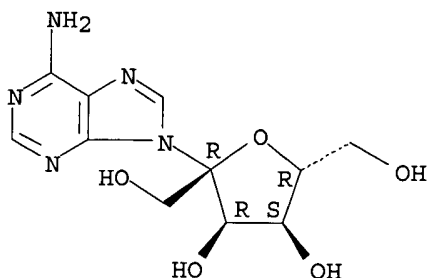
Absolute stereochemistry.

09567863



L3 ANSWER 194 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1960:15656 CAPLUS
DN 54:15656
OREF 54:3049h-i
TI Spectrophotometric determination of psicofuranine-elimination of monosaccharide interference in the determination of a nucleoside
AU Forist, Arlington A.
CS Upjohn Co., Kalamazoo, MI
SO Anal. Chem. (1959), 31, 1767-8
CODEN: ANCHAM; ISSN: 0003-2700
DT Journal
LA Unavailable
AB The procedure for the detn. of psicofuranine in the presence of psicose, its hydrolysis product, is based on the elimination of psicose by redn. with NaBH₄ followed by color development on reaction of psicofuranine with Ph₂NH.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- (detn. of, in presence of psicose)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

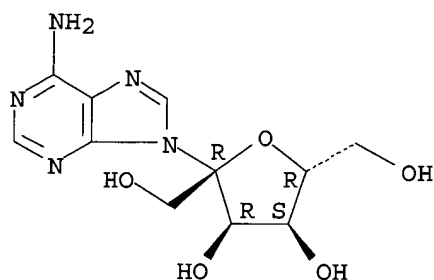


L3 ANSWER 195 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1959:123194 CAPLUS
DN 53:123194
OREF 53:22216a-c
TI Selection of antibiotic-sensitive staphylococci from antibiotic-resistant populations by 2,4-dinitrophenol and sodium salicylate
AU Fusillo, Matthew H.; Weiss, Daniel L.
CS District Columbia Gen. Hosp., Washington, DC
SO Antibiotics & Chemotherapy (1959), 9, 455-8
DT Journal
LA Unavailable
AB cf. C.A. 52, 12990b. Antibiotic-sensitive colonies were recovered from

antibiotic-resistant *Staphylococcus aureus* populations when grown anaerobically in the presence of 2,4-dinitrophenol and Na salicylate. The latter was less effective and produced fewer sensitive cultures. The parent cultures selected were resistant to penicillin, streptomycin, and tetracycline. An ideal chemotherapeutic agent for staphylococci is defined as one which inhibits anaerobic cell metabolism as well as oxidative phosphorylation at clinically effective levels without being toxic to the host.

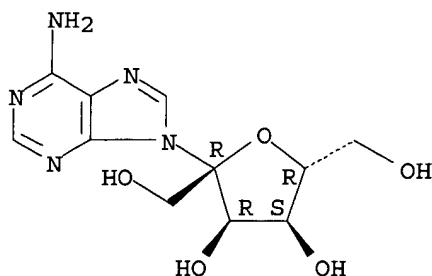
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(detn. of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

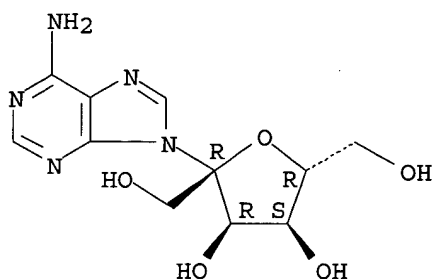


L3 ANSWER 196 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1959:123193 CAPLUS
DN 53:123193
OREF 53:222151,22216a
TI Psicofuranine. V. Paper chromatography and ultraviolet absorption assay
AU Sokolski, W. T.; Eilers, N. J.; Eble, T. E.
CS Upjohn Co., Kalamazoo, MI
SO Antibiotics & Chemotherapy (1959), 9, 436-8
DT Journal
LA Unavailable
AB The paper chromatographic pattern for I with 6 solvent systems is described. The optical d. of the area on a strip contg. I and developed in a system of BuOH:water (84:16) with 2% piperidine added to the mixt. was measured by ultraviolet absorption techniques at 262 m.mu. by using a recording spectrophotometer and the amt. of I detd. from a standard curve plotted as logarithmic dose vs. optical d. A dose of 1 .gamma. was detectable. The standard error for the assay was estd. to be 16%.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(detn. of)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

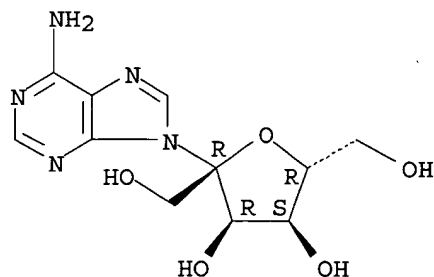


09567863



L3 ANSWER 197 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1959:123192 CAPLUS
DN 53:123192
OREF 53:22215h-i
TI Psicofuranine. IV. Microbiological assay
AU Hanka, L. J.; Burch, M. R.; Sokolski, W. T.
CS Upjohn Co., Kalamazoo, MI
SO Antibiotics & Chemotherapy (1959), 9, 432-5
DT Journal
LA Unavailable
AB I, an antibiotic with antibacterial activity in vivo but not in vitro by the usual test methods, was assayed by using a semisynthetic growth medium supplemented with liver ext. and Staphylococcus aureus as the test organism. A disk plate method requiring 4 hrs. refrigeration before incubation for 6-8 hrs. at 37.degree. detected 10 .gamma. I/ml. in water and 3 .gamma./ml. in blood or serum. A turbidimetric assay detected 0.5 .gamma./ml.
IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(bacterial inhibition by)
RN 1874-54-0 CAPLUS
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



(detn. of

L3 ANSWER 198 OF 201 CAPLUS COPYRIGHT 2003 ACS
AN 1959:123191 CAPLUS
DN 53:123191
OREF 53:22215h
TI Psicofuranine. III. Production and biological studies
AU Vavra, J. J.; Dietz, A.; Churchill, B. W.; Siminoff, P.; Koepsell, H. J.
CS Upjohn Co., Kalamazoo, MI
SO Antibiotics & Chemotherapy (1959), 9, 427-31
DT Journal
LA Unavailable
AB Streptomyces hygroscopicus var. decoyicus which produces I is described.

09567863

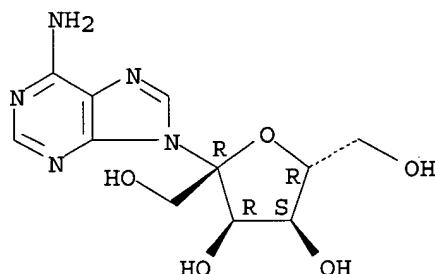
The in vitro activity of I against various bacteria on a minimal liver ext. medium is given.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(bacterial inhibition by)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 199 OF 201 CAPLUS COPYRIGHT 2003 ACS

AN 1959:123190 CAPLUS

DN 53:123190

OREF 53:22215f-h

TI Psicofuranine. II. Studies in experimental animal infections

AU Lewis, Charles; Reames, Harold R.; Rhuland, Lionel E.

CS Upjohn Co., Kalamazoo, MI

SO Antibiotics & Chemotherapy (1959), 9, 421-6

DT Journal

LA Unavailable

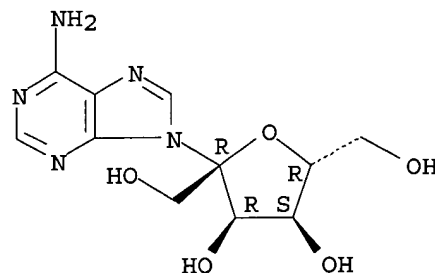
AB I was not active in vitro in conventional media in concns. of 500 .mu./ml. against a variety of bacteria, but in mouse protection tests administered orally or subcutaneously in doses of 6.5-68 mg./kg./day it was effective in curing exptl. infections caused by Staphylococcus aureus, Streptococcus pyogenes, and Escherichia coli in mice. I was inactive against Diplococcus pneumoniae, Proteus vulgaris, Pseudomonas aeruginosa, Salmonella, Entamoeba histolytica, and Nippostrongylus muris. Resistance to I was developed in a slow stepwise manner by repeated passage in vitro of S. aureus in 500 .gamma. I/ml. and the increased resistance measured by the in vivo sensitivity of the strain in infected mice. Mice tolerated subcutaneous doses of 400 mg. I/kg./day and oral of 800 mg./kg./day for 6 days.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(bacterial inhibition by)

RN 1874-54-0 CAPLUS

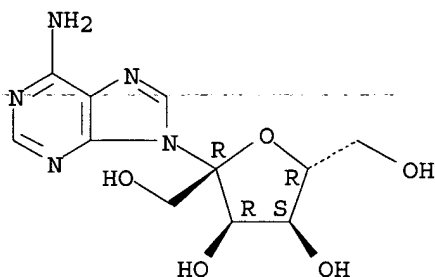
CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 200 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1959:123189 CAPLUS
 DN 53:123189
 OREF 53:22215d-f
 TI Psicofuranine. I. Discovery, isolation, and properties
 AU Eble, T. E.; Hoeksma, H.; Boyack, G. A.; Savage, G. M.
 CS Upjohn Co., Kalamazoo, MI
 SO Antibiotics & Chemotherapy (1959), 9, 419-20
 DT Journal
 LA Unavailable
 AB Psicofuranine (I), 6-amino-9-D-psicofuranosylpurine, a new, cryst. antibiotic produced in fermented broth by *Streptomyces hygroscopicus* var. *decoyicus*, was obtained from the broth (pH 2), filtered, and adjusted to pH 9.7-10; absorbed on C; eluted with 80% Me₂CO, pH adjusted to 7-8; concd., and crystd. at 2.degree.. I was purified by countercurrent distribution in BuOH-water. I m. 212-14.degree. (decompn.); very sol. in dimethylformamide, dimethyl sulfoxide, and hot water; sol. in water and MeOH at 8 mg./ml., EtOH 6 mg./ml., BuOH 2 mg./ml., and EtOAc 0.23 mg./ml.; [α]_{25D} = -53.7.degree. (c, 1% in dimethylsulfoxide) and [α]_{25D} = -68.degree. (c, 1% in dimethylformamide); most stable at pH 7, at 0-25.degree.. The infrared spectrum is given. In 0.01N acid I gave E_{1%1cm.} = 508 at 259 m. μ .; in 0.01N base E_{1%1cm.} = 527 at 261 m. μ ..
 IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl- (bacterial inhibition by)
 RN 1874-54-0 CAPLUS
 CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



(properties of

L3 ANSWER 201 OF 201 CAPLUS COPYRIGHT 2003 ACS
 AN 1959:83472 CAPLUS
 DN 53:83472
 OREF 53:15092f-i
 TI A new antibiotic, 6-amino-9-D-psicofuranosylpurine
 AU Schroeder, Wm.; Hoeksema, Herman
 CS Upjohn Co., Kalamazoo, MI
 SO J. Am. Chem. Soc. (1959), 81, 1767-8
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA Unavailable
 GI For diagram(s), see printed CA Issue.
 AB The data presented allow the formulation (I) for the antibiotic U-9586, m. 212-14.degree. (decompn.), [α]_{25D} -53.7.degree. (c 1, Me₂SO₂), -68.degree. (c 1, HCONMe₂). I hydrolyzed with aq. or alc. acid gave an adenine salt. I hydrolyzed 12 hrs. at 25.degree. in 0.57M H₂SO₄, the adenine sulfate sepd., and the filtrate treated with PhNHNH₂ gave a phenylosazone (II), m. 161-3.degree., [α]_{25D} -75.4.degree. (after 15

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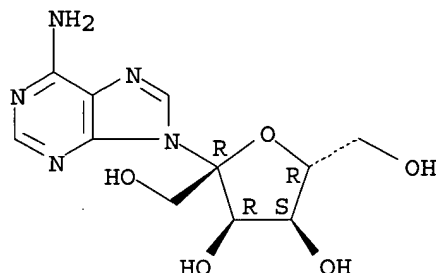
min., c 0.557 in pyridine). II with CuSO₄ gave a phenylosotriazole, m. 134-5.degree., [.alpha.]_D 28.5.degree. (c 0.554, pyridine). Thus the sugar was D-psicose. D-Psicosyl chloride tetraacetate condensed with chloromercuri-6-acetamidopurine and the product deacylated yielded I, identical to the natural material.

IT 1874-54-0, Adenine, 9-.beta.-D-psicofuranosyl-
(prepn. of)

RN 1874-54-0 CAPLUS

CN 9H-Purin-6-amine, 9-.beta.-D-psicofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> s l3 and oligonucleotide

40662 OLIGONUCLEOTIDE

L4 7 L3 AND OLIGONUCLEOTIDE

=> d l4 bib abs hitstr 1-7

L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 2002:368486 CAPLUS

DN 136:355426

TI Preparation of modified nucleosides and nucleotides and use thereof

IN Chattopadhyaya, Jyoti

PA Swed.

SO PCT Int. Appl., 33 pp.

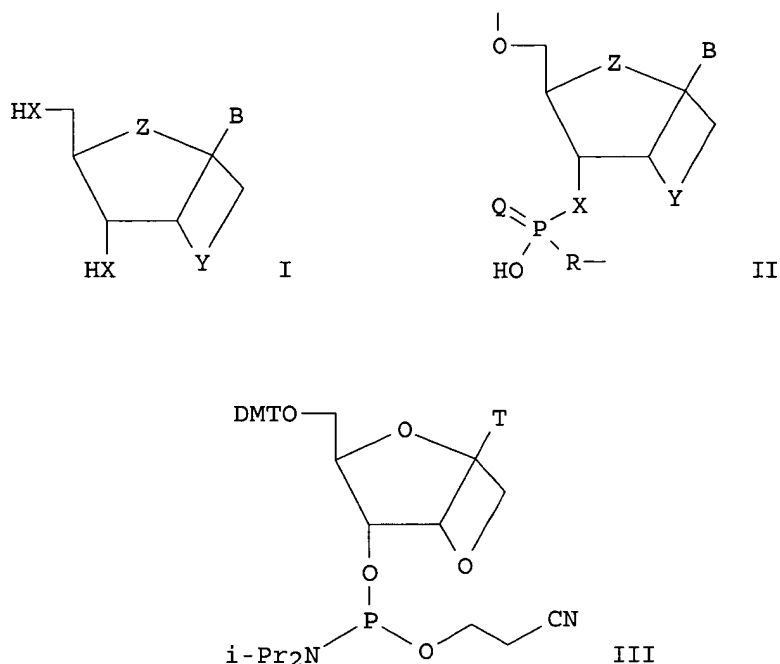
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002038578	A1	20020516	WO 2001-SE2484	20011109
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, VZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2002014477	A5	20020521	AU 2002-14477	20011109
PRAI	US 2000-247399P	P	20001109		
	US 2001-308063P	P	20010725		
	WO 2001-SE2484	W	20011109		
OS	MARPAT 136:355426				
GI					



AB The present invention relates to the prepn. of modified nucleotides and nucleosides I and II wherein Q = O, S; X = O, S, NH, NCH₃, CH₂, CHMe, Y = O, S, NH, NCH₃, CH₂, CHMe; Z = O, S, NH, NCH₃, CH₂, CHMe; R = O, S, NH, NCH₃, CH₂, CHMe; B = A, C, G, T; 5-F/Cl/BrU, 6-thioguanine, 7-deazaguanine; .alpha.- or .beta.-D-(or L)ribo, xylo, arabino or lyxo configuration. The modified nucleotides and nucleotides are assembled to larger oligonucleotides and oligonucleosides, which, for example, may be used for diagnostics of polymorphisms and for antisense therapy of various conditions (no data). The oligonucleotides and oligonucleosides described in the invention have very good endonuclease resistance without compromising the RNA cleavage properties of RNase H. Thus, nucleoside phosphoramidite III was prepd. and incorporated into oligonucleosides useful as endonuclease resistance without compromising the RNA cleavage properties of RNase H.

IT **344906-03-2P**

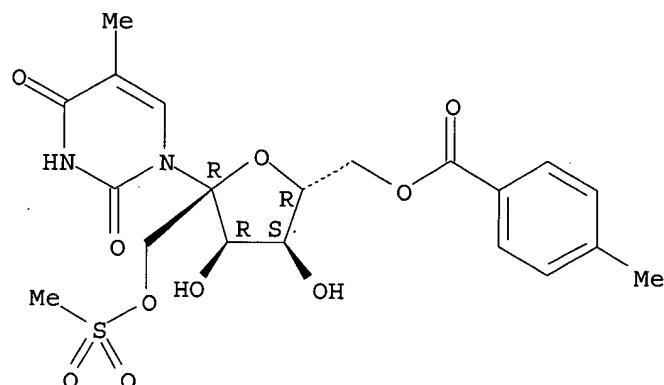
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and endonuclease resistance of modified oligonucleosides)

RN 344906-03-2 CAPLUS

CN Uridine, 5-methyl-1'-C-[[[(methylsulfonyl)oxy]methyl]-, 5'-(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

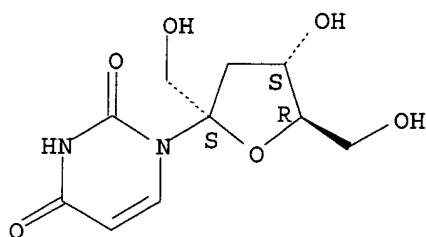


RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2003 ACS
AN 2001:481502 CAPLUS
DN 135:227197
TI Synthesis of a Novel Bicyclic Nucleoside Restricted to an S-Type
Conformation and Initial Evaluation of Its Hybridization Properties When
Incorporated into Oligodeoxynucleotides
AU Kvrno, Lisbet; Wightman, Richard H.; Wengel, Jesper
CS Center for Synthetic Bioorganic Chemistry Department of Chemistry,
University of Copenhagen, Copenhagen, DK-2100, Den.
SO Journal of Organic Chemistry (2001), 66(15), 5106-5112
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 135:227197
AB The phosphoramidite (1S,3R,4S)-3-(2-cyanoethoxy(diisopropylamino)phosphino
xymethyl)-5-N-(4-monomethoxytrityl)-1-(uracil-1-yl)-5-aza-2-
oxabicyclo[2.2.1]heptane of a novel bicyclic nucleoside structure was
synthesized from the known 1-(3'-deoxy-.beta.-D-psicofuranosyl)uracil.
Conformational anal. of its structure verified its expected S-type
furanose conformation, and the secondary amino group in the 4'-position
allowed for incorporation into oligonucleotides using 5'.fwdarw.3'
directed **oligonucleotide** synthesis as previously described for
phosphoramidates. Thermal denaturation studies showed rather large
decreases in duplex stabilities of -4.3 and -2.7 .degree.C per
modification toward complementary DNA and RNA, resp.
IT 55697-37-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of a novel bicyclic nucleoside restricted to an S-type
conformation and initial evaluation of its hybridization properties
when incorporated into oligodeoxynucleotides)
RN 55697-37-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-(3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

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IT 358625-34-0P 358625-37-3P 358625-52-2P

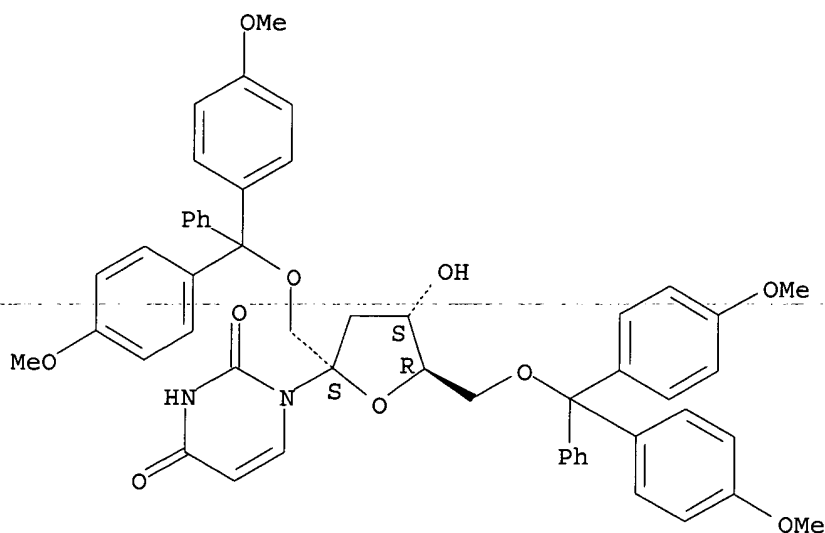
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of a novel bicyclic nucleoside restricted to an S-type conformation and initial evaluation of its hybridization properties when incorporated into oligodeoxynucleotides)

RN 358625-34-0 CAPLUS

CN Uridine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy)methyl]-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

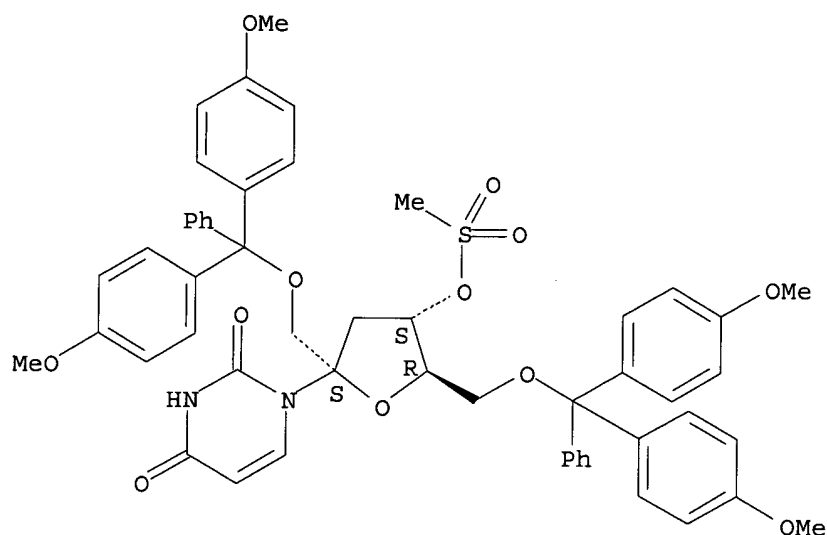


RN 358625-37-3 CAPLUS

CN Uridine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy)methyl]-5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-, 3'-methanesulfonate (9CI) (CA INDEX NAME)

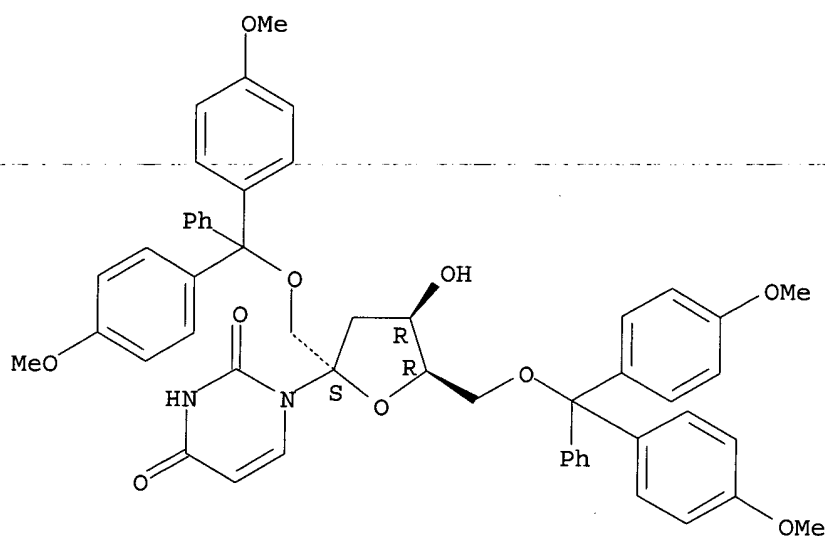
Absolute stereochemistry.

09567863



RN 358625-52-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[1,6-bis-O-[bis(4-methoxyphenyl)phenylmethyl]-3-deoxy-.beta.-D-threo-2-hexulofuranosyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2003 ACS
AN 2001:138891 CAPLUS
DN 135:57707
TI Conformation-specific cleavage of antisense oligonucleotide-RNA
duplexes by RNase H
AU Pradeepkumar, Pushpangadan I.; Zamaratski, Edouard; Foldesi, Andras;
Chattopadhyaya, Jyoti
CS Department of Bioorganic Chemistry, Biomedical Center, University of
Uppsala, Uppsala, S-75123, Swed.
SO Journal of the Chemical Society, Perkin Transactions 2 (2001), (3),

402-408

CODEN: JCSPGI; ISSN: 1472-779X

PB Royal Society of Chemistry

DT Journal

LA English

OS CASREACT 135:57707

AB The North-form (3'-endo) constrained 1-(1',3'-O-anhydro-.beta.-D-psicofuranosyl)thymine block, T, was systematically incorporated at various sites, one at a time, into a set of four antisense oligonucleotides (AONs). The hybrids of these AONs with a matched 15mer RNA target were subjected to the RNase H cleavage reaction, and compared with that of the native counterpart, in order to probe how far the local influence of a single North-locked sugar is transmitted in steering conformational changes in the neighboring nucleotides. It was found that the introduction of a single North-sugar locked T nucleotide in the AONs makes up to four of the neighboring nucleotides at the 5'-end of the modification site resistant to the RNase H cleavage reaction. This suggests that a stretch of 5-nucleotides, including the T nucleotide, in the AON strand adopts a North-type conformation, giving a local RNA/RNA type hybrid structure instead of a regular DNA/RNA type duplex structure. Although these 5-nucleotide regions were completely resistant to RNase H promoted hydrolysis, they could serve as the binding site for the enzyme. Interestingly, none of these local adaptations of the RNA/RNA type structure were observable by CD spectroscopy, showing it to be an unsuitable means of monitoring any subtle alteration of the local structure. This work, therefore, constitutes an example of how the engineered conformation of a substrate can be used to exploit the stereochem. sensitivity of an enzyme to map local microscopic conformational changes. The other implication of this work is that it provides a new tool to gather local structural information, which may help to optimize the no. of constrained residues which need to be incorporated to induce the antisense strand to adopt either A- or B-type geometry in the hybrid duplex, with or without the loss of RNase H recognition and/or cleavage properties.

IT 344906-03-2P

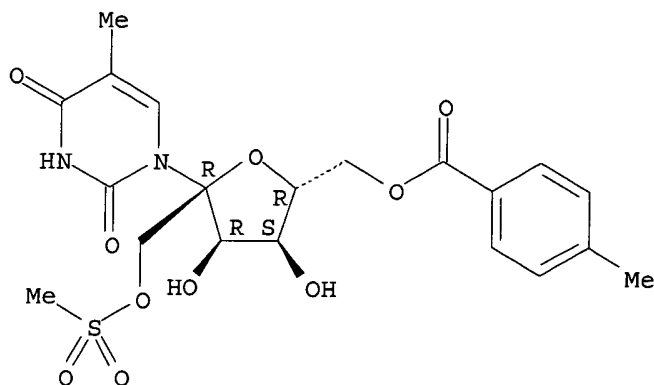
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(conformation-specific cleavage of antisense oligonucleotide
-RNA duplexes by RNase H)

RN 344906-03-2 CAPLUS

CN Uridine, 5-methyl-1'-C-[[(methylsulfonyl)oxy]methyl]-,
5'-(4-methylbenzoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

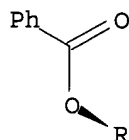
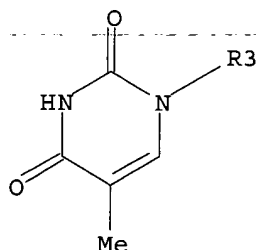


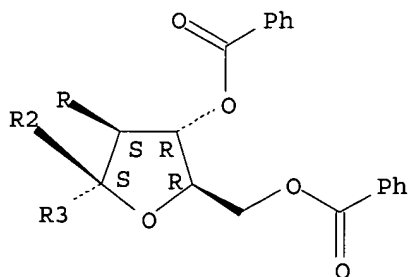
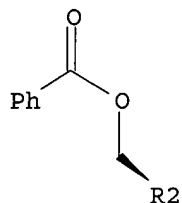
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2003 ACS
AN 1998:760830 CAPLUS
DN 130:110550
TI Synthesis and hybridization property of an **oligonucleotide**
analog containing a 1',3'-di-O-methylene-.alpha.-D-fructose backbone
AU Zou, Ruiming; Matteucci, Mark D.
CS Gilead Sciences, Inc., Foster City, CA, 94404, USA
SO Bioorganic & Medicinal Chemistry Letters (1998), 8(21), 3049-3052
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science Ltd.
DT Journal
LA English
AB Hydrogen phosphonate monomers of T (thymine) and Cm (5-methylcytosine)
bearing a 1',3'-di-O-methylene-.alpha.-D-fructose sugar moiety were
synthesized and incorporated into an **oligonucleotide**.
Hybridization studies by thermal denaturation expt. indicated that this
oligonucleotide did not form a duplex with the complementary RNA
target.
IT **219537-76-5P 219537-77-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(synthesis and hybridization property of an oligodeoxyribonucleotide
analog contg. a methylene-fructose backbone)
RN 219537-76-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 5-methyl-1-(1,3,4,6-tetra-O-benzoyl-.alpha.-D-
fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

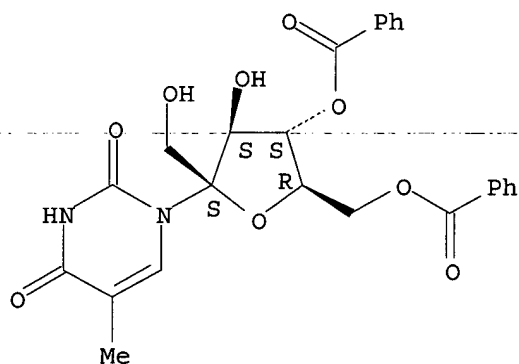
PAGE 1-A





RN 219537-77-6 CAPLUS
 CN 2,4(1H,3H)-Pyrimidinedione, 1-(4,6-di-O-benzoyl-.alpha.-D-fructofuranosyl)-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2003 ACS
 AN 1995:563174 CAPLUS
 DN 123:340613
 TI Looped oligonucleotides form stable hybrid complexes with a single-stranded DNA
 AU Azhayeva, Elena; Azhayev, Alex; Guzaev, Andrei; Hovinen, Jari; Loonnberg, Harri
 CS Dep. Chem., Univ. Turku, Turku, FIN-20500, Finland
 SO Nucleic Acids Research (1995), 23(7), 1170-6
 CODEN: NARHAD; ISSN: 0305-1048
 PB Oxford University Press
 DT Journal
 LA English
 AB Several new branched, circular, and looped oligonucleotides were synthesized. 3'-Deoxy-psicothymidine was employed to create the site of

branching when required. The circular and looped structures were obtained by oxidative disulfide bond formation between mercaptoalkyl tether groups. All the oligonucleotides prep'd. contained two T11 sequences, and the branched and looped oligomers an addnl. alternating CT sequence. Melting expts. revealed that the branched oligonucleotides form relatively weak hybrid (double/triple helix) complexes with the single-stranded oligodeoxyribonucleotide, showing a considerable destabilizing effect produced by the structure at the point of branching. The data obtained with looped oligonucleotides demonstrated considerable stabilization of the hybrid (double/triple helix) complexes with the complement. The data reported may be useful in attempting to design new antisense or antigene oligonucleotides capable of forming selective and stable bimol. hybrid complexes with nucleic acids.

IT 153184-89-5 153214-48-3

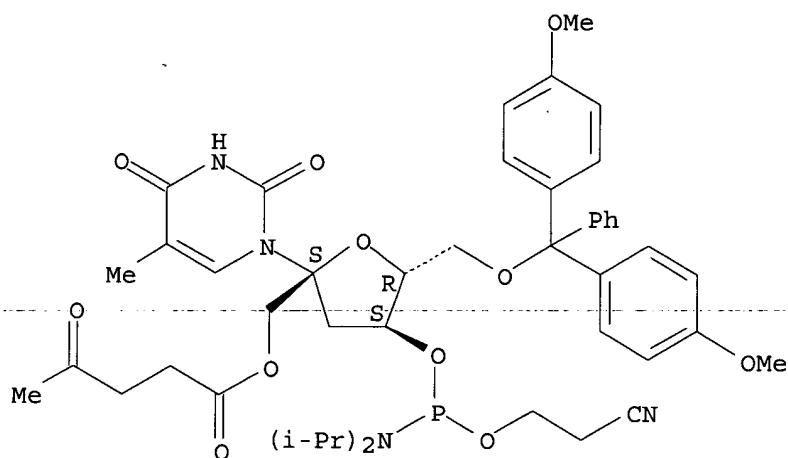
RL: RCT (Reactant); RACT (Reactant or reagent)

(complexes of looped oligonucleotides with single-stranded DNA)

RN 153184-89-5 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-[[[(1,4-dioxopentyl)oxylmethyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

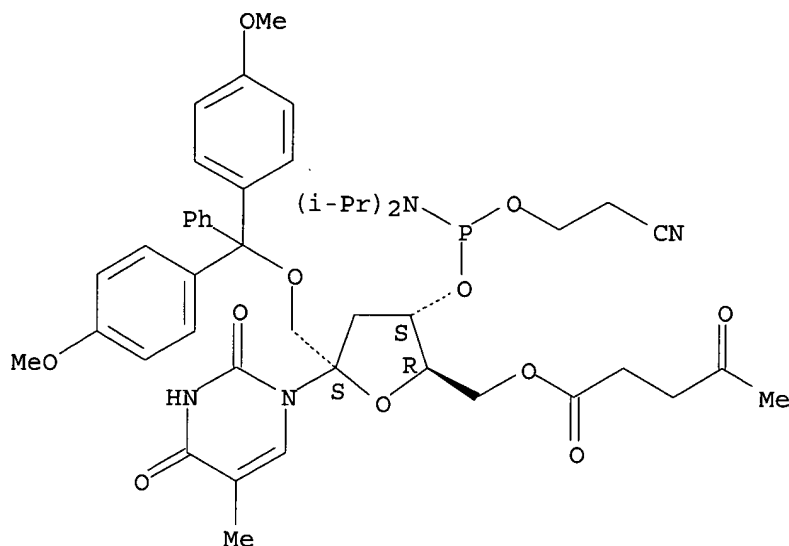
Absolute stereochemistry.



RN 153214-48-3 CAPLUS

CN Thymidine, 1'-C-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] 5'-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS

AN 1994:681072 CAPLUS

DN 121:281072

TI Synthesis and Primer Properties of Oligonucleotides Containing
3'-Deoxy-psicothymidine Units, Labeled with Fluorescein at the 1'-Position
AU Guzaev, Andrei; Azhayeva, Elena; Hovinen, Jari; Azhayev, Alex; Lonnberg,
Harri

CS Department of Chemistry, University of Turku, Turku, FIN-20500, Finland

SO Bioconjugate Chemistry (1994), 5(6), 501-3

CODEN: BCCHES; ISSN: 1043-1802

DT Journal

LA English

AB Several analogs of the std. M13 sequencing primer that contain up to five
3'-deoxy-psicothymidines, or one or two such units labeled with fluorescein
at the 1'-position, have been prepd. All these oligonucleotides have been
shown to prime the DNA-polymerase-catalyzed synthesis of DNA.

IT 153184-89-5P

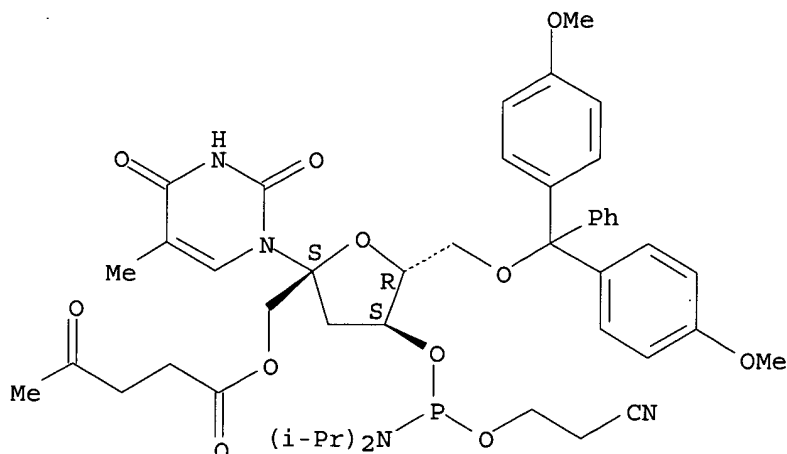
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)

(synthesis and primer properties of oligonucleotides contg.
3'-deoxy-psicothymidine units and labeled with fluorescein at
1'-position)

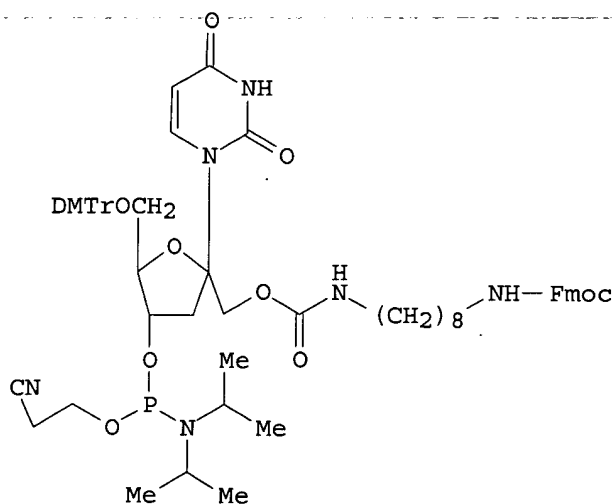
RN 153184-89-5 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-1'-C-[[[(1,4-
dioxopentyl)oxy]methyl]-, 3'-[2-cyanoethyl bis(1-
methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2003 ACS
 AN 1994:409895 CAPLUS
 DN 121:9895
 TI Nucleosides and nucleotides. 121. Synthesis of oligonucleotides carrying linker groups at the 1'-position of sugar residues
 AU Ono, Akira; Dan, Akihito; Matsuda, Akira
 CS Fac. Pharm. Sci., Hokkaido Univ., Sapporo, 060, Japan
 SO Bioconjugate Chemistry (1993), 4(6), 499-508
 CODEN: BCCHES; ISSN: 1043-1802
 DT Journal
 LA English
 GI



I

AB Novel 2'-deoxyuridine analogs, e.g. I, carrying aminoalkyl linkers at the 1'-position of the sugar residues were synthesized and incorporated into oligonucleotides, then intercalating groups such as an anthraquinone deriv. and a pyrene deriv. were attached to the amino groups. Duplexes consisting of the oligonucleotides carrying the linker groups and a complementary ribonucleotide were more stable than an unmodified parent duplex, but the duplexes consisting of the oligonucleotides and a complementary deoxyribonucleotide were less stable. The oligonucleotides

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carrying the linker groups were more resistant to nuclease P1 and venom phosphodiesterase than an unmodified **oligonucleotide**.

Furthermore, a duplex formed by the **oligonucleotide** analog and the complementary ribonucleotide was a substrate for RNase H.

IT **152773-17-6P**

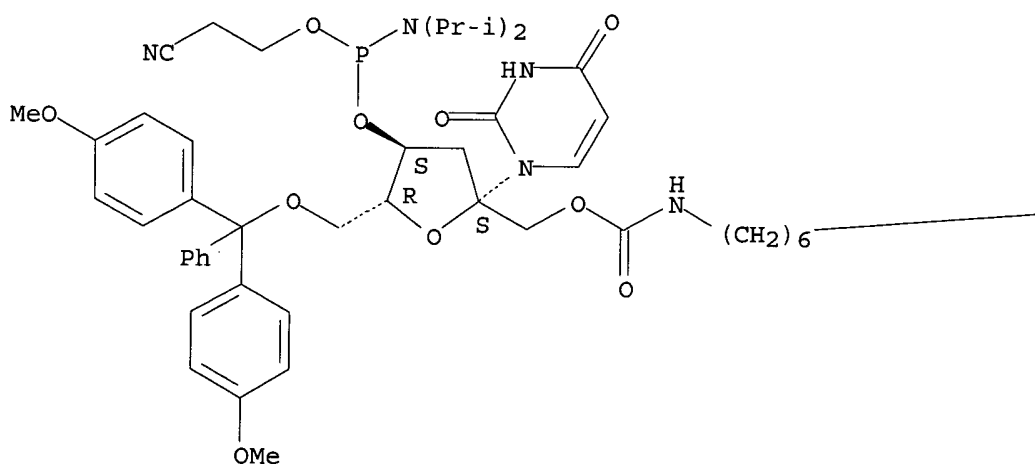
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and incorporation of, into oligodeoxyribonucleotides)

RN 152773-17-6 CAPLUS

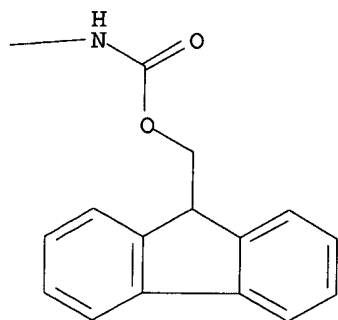
CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[14-(9H-fluoren-9-yl)-3,12-dioxo-2,13-dioxo-4,11-diazatetradec-1-yl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT **55697-36-4P 150880-79-8P 150880-80-1P**
152773-13-2P 152773-14-3P 152773-15-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

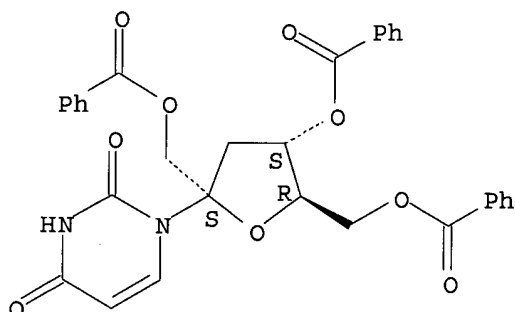
09567863

(prepn. and reaction of, in synthesis of olidodeoxyribonucleotide duplexes)

RN 55697-36-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-3-deoxy-.beta.-D-erythro-2-hexulofuranosyl)- (9CI) (CA INDEX NAME)

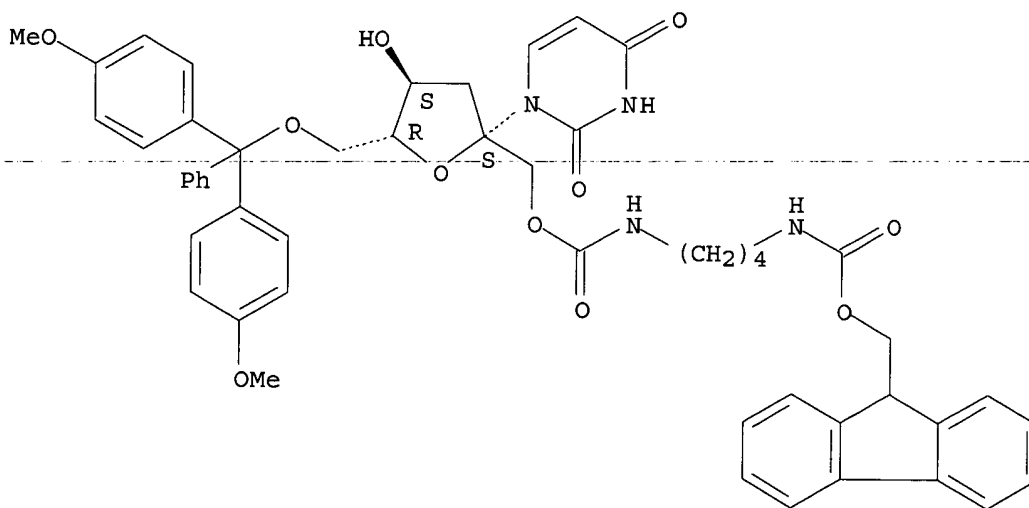
Absolute stereochemistry.



RN 150880-79-8 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[12-(9H-fluoren-9-yl)-3,10-dioxo-2,11-dioxo-4,9-diazadodec-1-yl]- (9CI) (CA INDEX NAME)

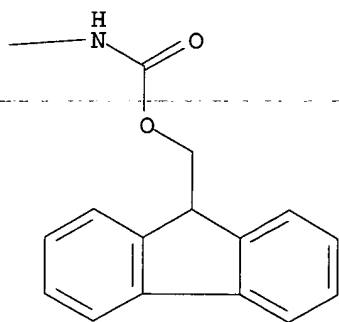
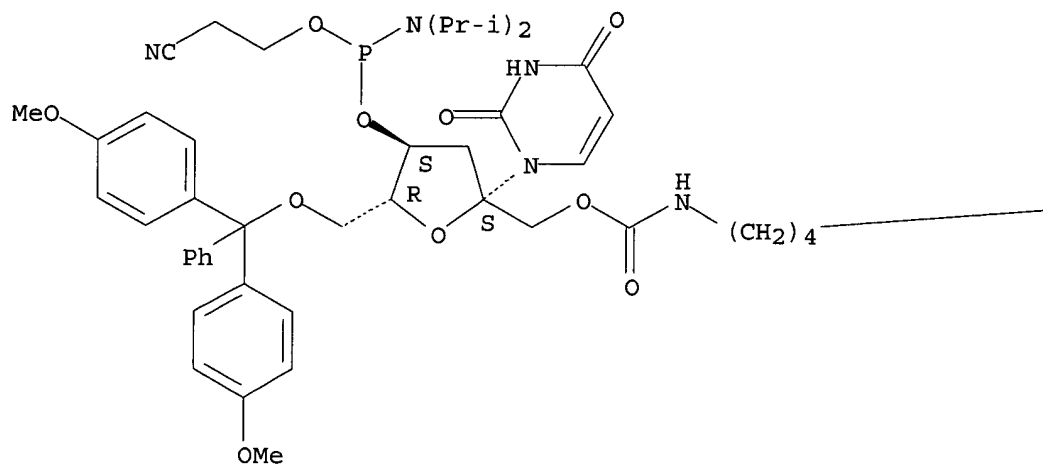
Absolute stereochemistry.



RN 150880-80-1 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[12-(9H-fluoren-9-yl)-3,10-dioxo-2,11-dioxo-4,9-diazadodec-1-yl]-, 3'-[2-cyanoethyl bis(1-methylethyl)phosphoramidite] (9CI) (CA INDEX NAME)

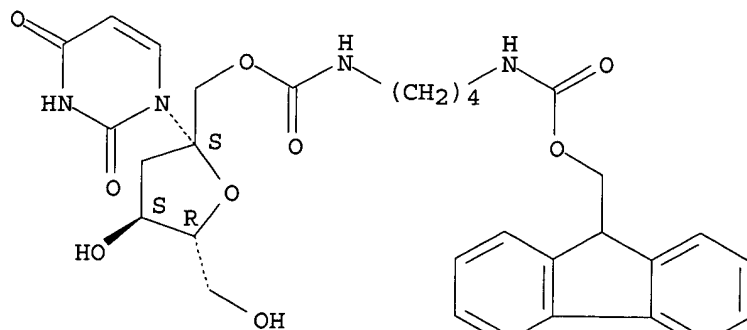
Absolute stereochemistry.



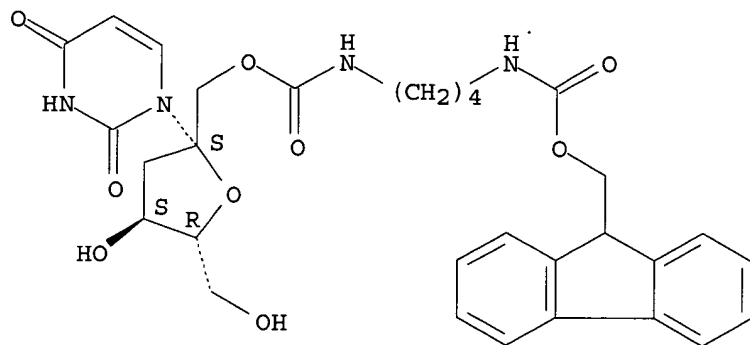
RN 152773-13-2 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[12-(9H-fluoren-9-yl)-3,10-dioxo-2,11-dioxa-4,9-diazadodec-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



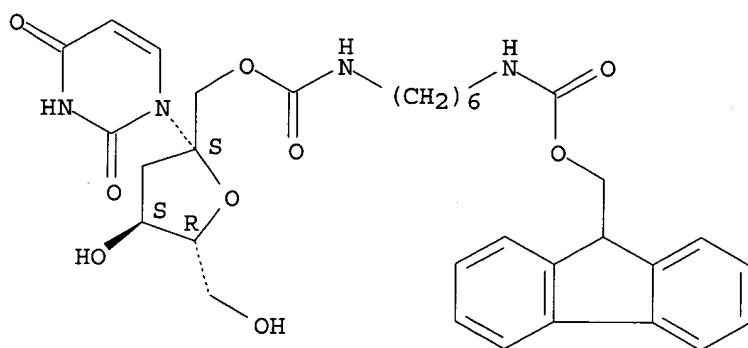
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RN 152773-14-3 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[14-(9H-fluoren-9-yl)-3,12-dioxo-2,13-dioxo-4,11-diazatetradec-1-yl]- (9CI) (CA INDEX NAME)

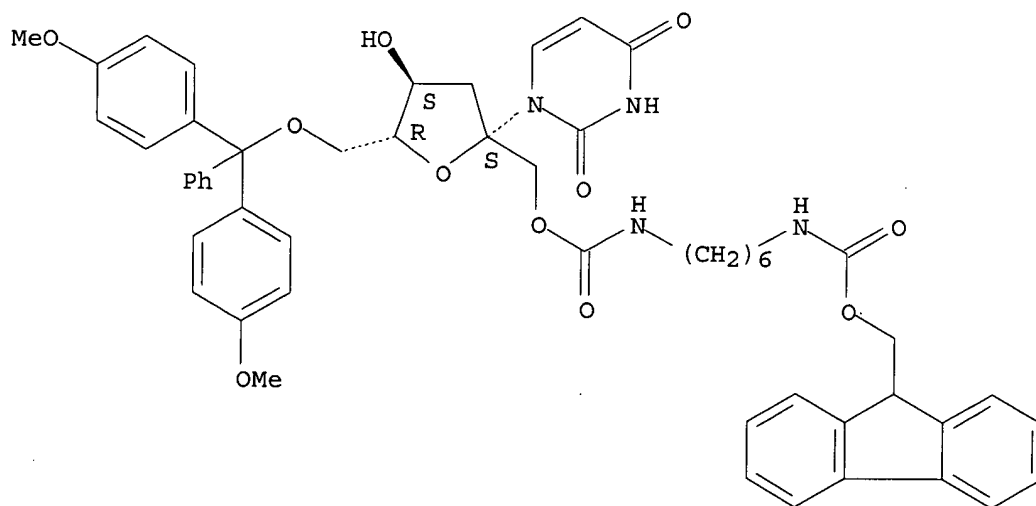
Absolute stereochemistry.



RN 152773-15-4 CAPLUS

CN Uridine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-2'-deoxy-1'-C-[14-(9H-fluoren-9-yl)-3,12-dioxo-2,13-dioxo-4,11-diazatetradec-1-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 145396-32-3P

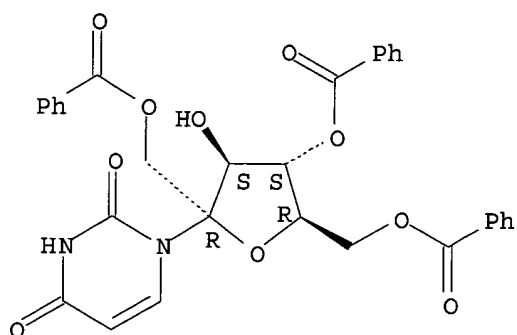
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and reaction of, in synthesis of oligodeoxyribonucleotide
duplexes)

RN 145396-32-3 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-(1,4,6-tri-O-benzoyl-.beta.-D-
fructofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



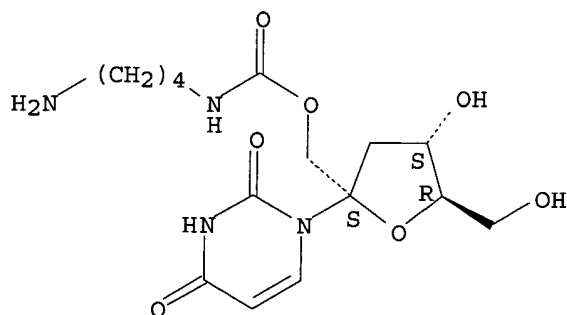
IT 150880-73-2P 150880-74-3P 150880-75-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and reaction of, in synthesis of oligodeoxyribonucleotides
duplexes)

RN 150880-73-2 CAPLUS

CN Uridine, 1'-C-[[[(4-aminobutyl)amino]carbonyl]oxy]methyl]-2'-deoxy- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

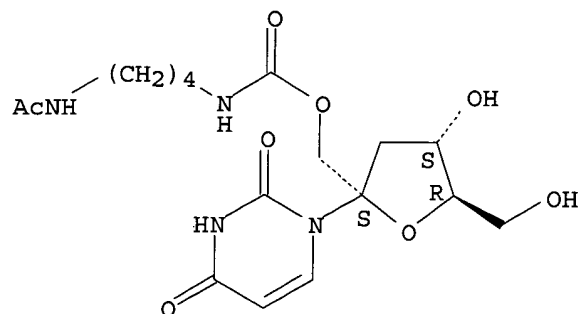


RN 150880-74-3 CAPLUS

CN Uridine, 1'-C-[[[(4-(acetilamino)butyl)amino]carbonyl]oxy]methyl]-2'-
deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

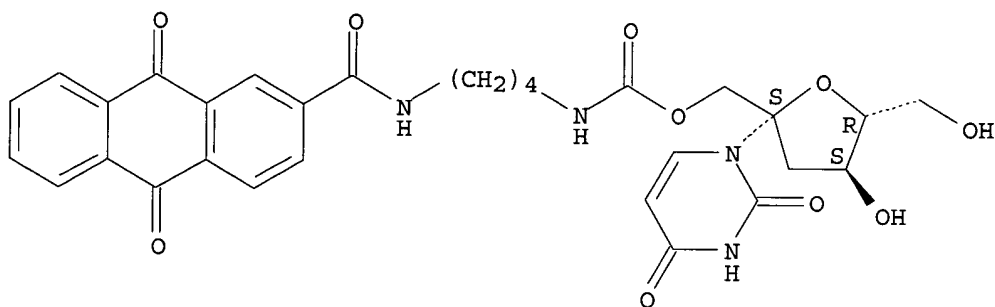
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RN 150880-75-4 CAPLUS

CN Uridine, 2'-deoxy-1'-C-[[[[[4-[[[9,10-dihydro-9,10-dioxo-2-anthracenyl) carbonyl] amino] butyl] amino] carbonyl] oxy] methyl] - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

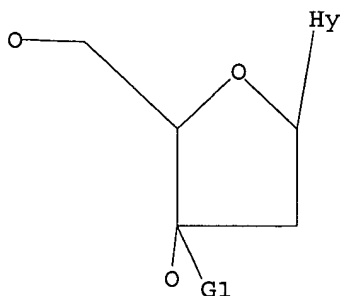


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=> d 15
L5 HAS NO ANSWERS
L5 STR

123



G1 CF3,NO2,C,N

Structure attributes must be viewed using STN Express query preparation.

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FULL SEARCH INITIATED 14:32:23 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 4774 TO ITERATE

100.0% PROCESSED 4774 ITERATIONS
SEARCH TIME: 00.00.01

563 ANSWERS

L6 563 SEA SSS FUL L5

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FULL ESTIMATED COST	148.55	1323.63
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FILE LAST UPDATED: 27 Mar 2003 (20030327/ED)

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*** YOU HAVE NEW MAIL ***

=> s 16

L7 166 L6

=> s 17 and oligonucleotide?

61604 OLIGONUCLEOTIDE?

L8 16 L7 AND OLIGONUCLEOTIDE?

=> d 18 bib abs hitstr 1-16

L8 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2003 ACS

AN 2001:177459 CAPLUS

DN 137:201520

TI Branched **oligonucleotides** containing bicyclic nucleotides as branching points and DNA or LNA as triplex forming branch. [Erratum to document cited in CA133:335424]

AU Sorensen, M. D.; Meldgaard, M.; Raunkjaer, M.; Rajwanshi, V. K.; Wengel, J.

CS Department of Chemistry, Center for Synthetic Bioorganic Chemistry, University of Copenhagen, Den.

SO Bioorganic & Medicinal Chemistry Letters (2001), 11(5), 751

CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

AB The cor. author list is given.

IT 302964-47-2P

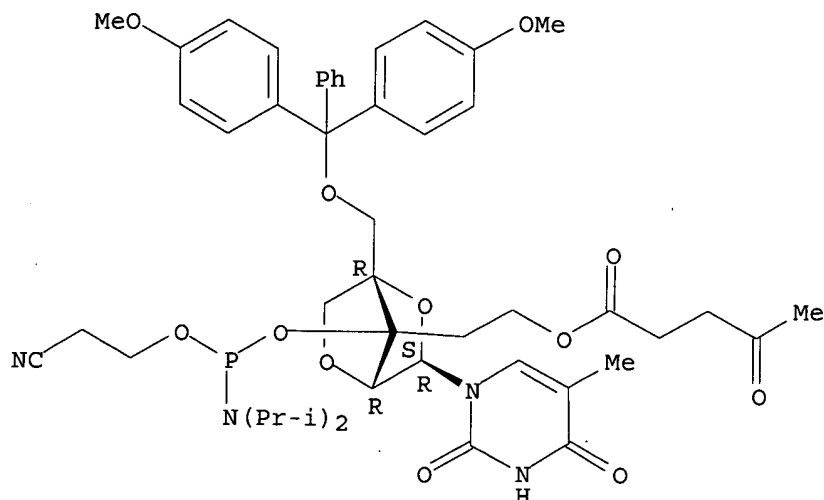
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(branched **oligonucleotides** contg. bicyclic nucleotides as branching points and DNA or LNA as triplex forming branch (Erratum))

RN 302964-47-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[2,5-anhydro-4-C-[[bis(4-methoxyphenyl)phenylmethoxy)methyl]-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-3-C-[2-[(1,4-dioxopentyl)oxy]ethyl]-.alpha.-L-lyxofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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L8 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2003 ACS

AN 2000:565894 CAPLUS

DN 133:335424

TI Branched **oligonucleotides** containing bicyclic nucleotides as branching points and DNA or LNA as triplex forming branch

AU Sorensen, M. D.; Meldgaard, M.; Rajwanshi, V. K.; Wengel, J.

CS Department of Chemistry, Center for Synthetic Bioorganic Chemistry, University of Copenhagen, Den.

SO Bioorganic & Medicinal Chemistry Letters (2000), 10(16), 1853-1856
CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

AB Various Y-shaped branched **oligonucleotides** contg. a 2'-O,3'-C-ethylene linked or 2'-O,4'-C-methylene linked bicyclic nucleotide as branching point were synthesized on an automated DNA synthesizer. Thermal denaturation expts. at 260 and 284 nm showed increased thermal stabilities of complexes formed between these Y-shaped **oligonucleotides** and complementary DNA compared with those formed with the corresponding linear ref. The most significant effect was obsd. when LNA (locked nucleic acid) monomers were used in the triplex forming branch.

IT 302964-47-2P

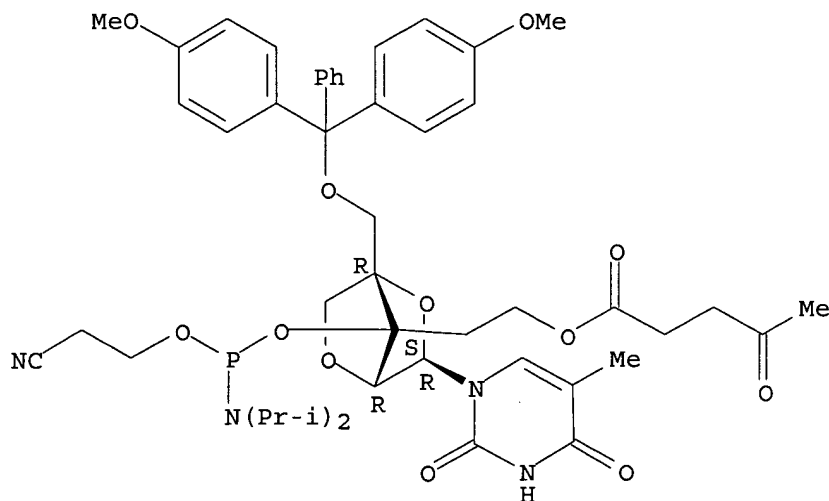
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(branched **oligonucleotides** contg. bicyclic nucleotides as branching points and DNA or LNA as triplex forming branch)

RN 302964-47-2 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[2,5-anhydro-4-C-[[bis(4-methoxyphenyl)phenylmethoxy]methyl]-3-O-[[bis(1-methylethyl)amino](2-cyanoethoxy)phosphino]-3-C-[2-[(1,4-dioxopentyl)oxy]ethyl]-.alpha.-L-lyxofuranosyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

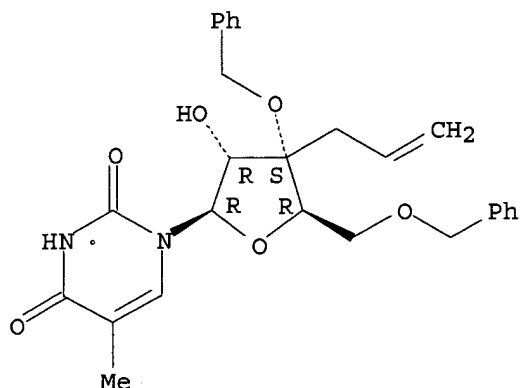
L8 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2003 ACS

AN 2000:125446 CAPLUS

DN 132:293971

- TI **Oligonucleotides** containing novel 4'-C- or 3'-C-(aminoalkyl)-
branched thymidines
- AU Pfundheller, Henrik M.; Bryld, Torsten; Olsen, Carl E.; Wengel, Jesper
- CS Department of Chemistry, University of Southern Denmark, Odense
University, Odense M, DK-5230, Den.
- SO Helvetica Chimica Acta (2000), 83(1), 128-151
CODEN: HCACAV; ISSN: 0018-019X
- PB Verlag Helvetica Chimica Acta
- DT Journal
- LA English
- AB The synthesis of four novel 3'-C-branched and 4'-C-branched nucleosides
and their transformation into the corresponding 3'-O-phosphoramidite
building blocks for automated **oligonucleotide** synthesis is
reported. The 4'-C-branched key intermediate 11 was synthesized by a
convergent strategy and converted to its 2'-O-Me and 2'-deoxy-2'-fluoro
derivs., leading to the prepn. of novel **oligonucleotide** analogs
contg. 4'-C-(aminomethyl)-2'-O-Me monomer X and 4'-C-(aminomethyl)-2'-
deoxy-2'-fluoro monomer Y. In general, increased binding affinity towards
complementary single-stranded DNA and RNA was obtained with these analogs
compared to the unmodified refs. The presence of monomer X or monomer Y
in a 2'-O-methyl-RNA **oligonucleotide** had a neg. effect on the
binding affinity of the 2'-O-methyl-RNA **oligonucleotide** towards
DNA and RNA. Starting from the 3'-C-allyl deriv. 28, 3'-C-(3-aminopropyl)-
protected nucleosides and 3'-O-phosphoramidite derivs. were synthesized,
leading to novel **oligonucleotide** analogs contg.
3'-C-(3-aminopropyl)thymidine monomer Z or the corresponding
3'-C-(3-aminopropyl)-2'-O,5-dimethyluridine monomer W. Incorporation of
the 2'-deoxy monomer Z induced no significant changes in the binding
affinity towards DNA but decreased binding affinity towards RNA, while the
2'-O-Me monomer Z induced decreased binding affinity towards DNA as well
as RNA complements.
- IT **191163-49-2 199931-19-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of **oligonucleotides** contg. or 4'-C- or
3'-C-(aminoalkyl)-branched thymidines)
- RN 191163-49-2 CAPLUS
- CN Uridine, 5-methyl-3',5'-bis-O-(phenylmethyl)-3'-C-2-propenyl- (9CI) (CA
INDEX NAME)

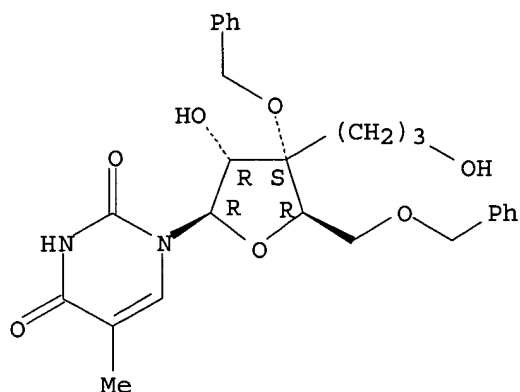
Absolute stereochemistry.



- RN 199931-19-6 CAPLUS
- CN Uridine, 3'-C-(3-hydroxypropyl)-5-methyl-3',5'-bis-O-(phenylmethyl)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

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IT 263547-18-8P 263547-19-9P 263547-20-2P

263547-21-3P 263547-22-4P 263547-23-5P

263547-24-6P 263547-25-7P 263547-26-8P

263547-27-9P 263547-28-0P 263547-29-1P

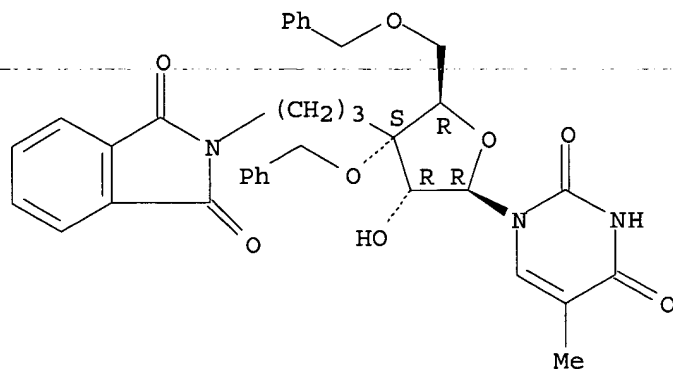
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of **oligonucleotides** contg. or 4'-C- or 3'-C-(aminoalkyl)-branched thymidines)

RN 263547-18-8 CAPLUS

CN Uridine, 3'-C-[3-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)propyl]-5-methyl-3',5'-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

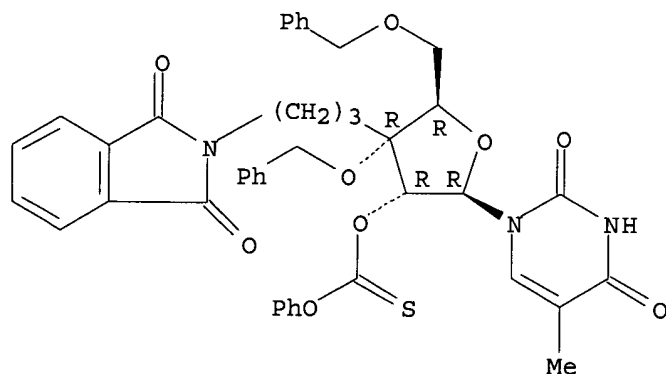


RN 263547-19-9 CAPLUS

CN Uridine, 3'-C-[3-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)propyl]-5-methyl-3',5'-bis-O-(phenylmethyl)-, 2'-(O-phenyl carbonothioate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

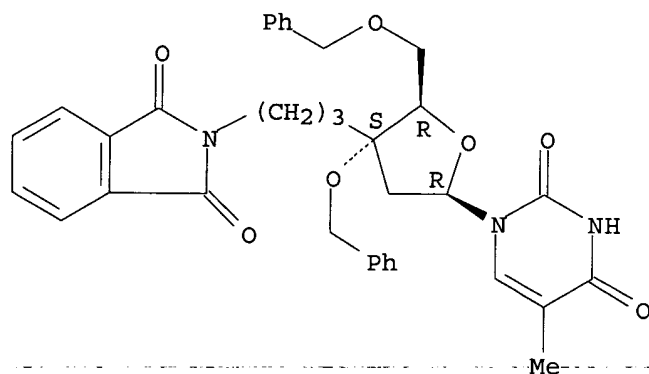
09567863



RN 263547-20-2 CAPLUS

CN Thymidine, 3'-C-[3-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)propyl]-3',5'-bis-O-(phenylmethyl) - (9CI) (CA INDEX NAME)

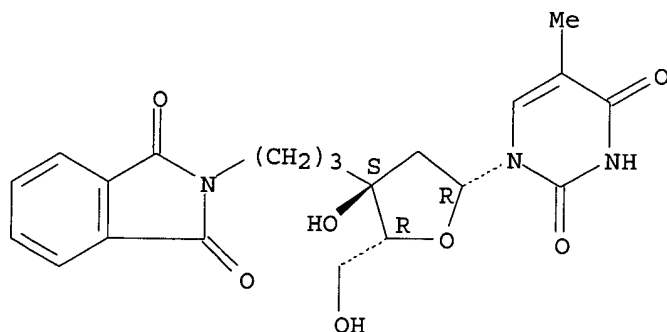
Absolute stereochemistry.



RN 263547-21-3 CAPLUS

CN Thymidine, 3'-C-[3-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 263547-22-4 CAPLUS

CN Thymidine, 5'-O-[bis(4-methoxyphenyl)phenylmethyl]-3'-C-[3-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.